INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: December 2, 2008

RE: Crane Division, NSWC Crane / 101-21308-00005

FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:
(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

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(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTVOP.dot12/3/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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www.idem.IN.gov

PART 70 OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY

Crane Division, Naval Surface Warfare Center (NSWC Crane)
300 Highway 361
Crane, Indiana 47522

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T101-21308-00005	
Issued by/Original Signed By: Tripurari P. Sinha, P.h. D, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 2, 2008 Expiration Date: December 2, 2013

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary a military base where ammunition, rockets, and other military ordnance are manufactured, stored, and disposed.

Source Address:	300 Highway 361, Crane, Indiana 47522
Mailing Address:	Code 0592, Building 3260, 300 Highway 361, Crane, Indiana 47522-5001
General Source Phone Number:	(812) 854-1132
SIC Code:	9711, 3483
County Location:	Martin
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Thirteen (13) abrasive blasting units, consisting of:

(1) CRN-0104-03-23-HH16, located in Building 104, replaced with previously-identified CRN-2171-01-17-DD22 in 2007, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0104-03-23-HH16-S.

(2) CRN-0106-02-23-HH13, located in Building 106, constructed in 1988, with a maximum capacity of 3,000 lbs/yr (1.5 TPY) abrasive used, using a baghouse with no identification to control particulate matter emissions, and exhausting to stacks CRN-0106-02-23-HH13-S1, S2.

(3) CRN-2521-07-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-2521-07-02-J17-S.

(4) CRN-2521-08-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emission, and exhausting to stack CRN-2521-08-02-J17-S.

(5) CRN-2521-09-2-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and

exhausting to stack CRN-2521-09-2-J17-S.

(6) CRN-3234-14-17-U26, located in Building 3234, constructed in 1993, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-3234-14-17-U26-S.

(7) CRN-0227-03-23-HH12, located in Building 227, constructed before 1991, with a maximum capacity of 3,000 lbs/yr (1.5 TPY) abrasive used, using baghouse with no identification to control particulate matter emissions, and exhausting to stack CRN-0227-03-23-HH12-S.

(8) CRN-3168-03-17-V28, located in Building 3168, constructed in 1988, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-3168-03-17-V28-S.

(9) CRN-0041-06-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(10) CRN-0041-07-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(11) CRN-0041-08-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(12) One (1) barrel blast system, located in Building 107, identified as CRN-0107-06-23-HH13, constructed in 2005, with a maximum throughput rate of 960 pounds of steel parts per hour and a maximum abrasive usage of 17,875 pounds of steel shots per hour, controlled by a baghouse with no identification, and exhausting through stack ABS1.

(13) One (1) vertical descaling machine, located in Building 107, identified as CRN-0107-07-23-HH13, constructed in 2005, with a maximum throughput rate of 2,500 pounds of steel parts per hour and a maximum abrasive usage of 143,000 pounds of steel shots per hour, controlled by a baghouse with no identification, and exhausting through stack ABS2.

(b) Thirty-three (33) boilers, consisting of:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-01-23-GG12 is considered an affected facility.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0115-

03-23-GG12-S.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-01-17-W25 is considered an affected facility.

(4) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-03-17-W25 is considered an affected facility.

(5) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-01-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0140-01-17-Y25-S.

(6) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-02-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0140-02-17-Y25-S.

(7) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-01-17-CC23, located in Building 150, constructed in April 1989, with a maximum capacity of 25.2 MMBtu/hr, and exhausting to stack CRN-0150-01-17-CC23-S.

(8) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-03-17-CC23, located in Building 150, constructed in April 1989, with a maximum capacity of 25.2 MMBtu/hr, and exhausting to stack CRN-0150-03-17-CC23-S.

(9) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-01-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 MMBtu/hr, and exhausting to stack CRN-0199-01-23-JJ14-S.

(10) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-02-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 MMBtu/hr, and exhausting to stack CRN-0199-02-23-JJ14-S.

(11) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 MMBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 MMBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

(13) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-

2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 MMBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(14) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(15) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(16) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(17) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 MMBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(18) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 MMBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(19) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(20) Hurst natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-03-17-U26, located in Building 41, constructed in 2008, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(21) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 MMBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-02-23-GG12 is considered an affected facility.

(23) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(24) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 MMBtu/hr, and exhausting to stack CRN-0149-01-10-

S30-S.

(25) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 MMBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(26) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 MMBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(27) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 MMBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(28) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 MMBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(29) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 MMBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(30) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 MMBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(31) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 MMBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(32) Superior natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-2674-01-00-0001, located in Building 2674, constructed in 1985, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-2674-01-00-0001-S.

(33) Superior natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-2674-02-00-0001, located in Building 2674, constructed in 1985, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-2674-02-00-0001-S.

(c) Three (3) carpentry shops, identified as:

(1) CRN-0056-04-10-T21, located in Building 56, with a maximum wood usage of 74,880 board feet per year and a maximum process weight rate of 0.14 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0056-04-10-T21-S. [40 CFR Part 64]

(2) CRN-0224-02-23-HH12, located in Building 224, with a maximum wood usage of 1,000,000 board feet per year and a maximum process weight rate of 0.69 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0224-02-23-HH12-S. [40 CFR Part 64]

(3) CRN-2720-04-23-GG12, located in Building 2720, with a maximum wood usage of 14,000 board feet per year and a maximum process weight rate of 0.25 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack

CRN-2720-04-23-GG12-S.

(d) Twenty-six (26) paint booths, consisting of:

(1) CRN-0104-01-23-HH16, exhausting to stack CRN-0104-01-23-HH16-S, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, exhausting to stack CRN-0104-02-23-HH16-S, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(3) CRN-0107-01-23-HH13, exhausting to stack CRN-0107-01-23-HH13-S, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(4) CRN-0107-02-23-HH13, exhausting to stack CRN-0107-02-23-HH13-S, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-03-23-HH13, exhausting to stack CRN-0107-03-23-HH13-S, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(6) CRN-0107-04-23-HH13, exhausting to stack CRN-0107-04-23-HH13-S, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(7) CRN-0136-01-17-Z26, exhausting to stack CRN-0136-01-17-Z26-S, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(8) CRN-0155-02-17-BB25, exhausting to stack CRN-0155-02-17-BB25-S, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(9) CRN-0155-03-17-BB25, exhausting to stack CRN-0155-03-17-BB25-S, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(10) CRN-0169-01-24-EE22, exhausting to stack CRN-0169-01-24-EE22-S, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(11) CRN-2520-01-17-Y26, exhausting to stack CRN-2520-01-17-Y26-S, located in Building 2520, constructed in 1968, using a dry filter to control particulate matter emissions.

(12) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, exhausting to stack CRN-2728-01-12-N42-S, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, exhausting to stack CRN-2728-02-12-N42-S, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, exhausting to stack CRN-2728-03-12-N42-S, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(13) CRN-3234-09-17-U26, exhausting to stack CRN-3234-09-17-U26-S, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(14) CRN-3234-10-17-U26, exhausting to stack CRN-3234-10-17-U26-S, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(15) CRN-3234-15-17-U26, exhausting to stack CRN-3234-15-17-U26-S, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(16) CRN-0198-01-23-II15, exhausting to stack CRN-0198-01-23-II15-S, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(17) CRN-0227-01-23-HH12, exhausting to stack CRN-0227-01-23-HH12-S, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(18) CRN-0227-02-23-HH12, exhausting to stack CRN-0227-02-23-HH12-S, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(19) CRN-2697-01-17-W24, exhausting to stack CRN-2697-01-17-W24-S, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions.

(20) CRN-2805-02-23-GG19, exhausting to stack CRN-2805-02-23-GG19-S, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(21) CRN-2805-03-23-GG19, exhausting to stack CRN-2805-03-23-GG19-S, located in Building 2805, constructed in 2006, using a dry filter to control particulate matter emissions.

(22) CRN-3168-02-17-V28, exhausting to stack CRN-3168-02-17-V28-S, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

(23) CRN-0106-03-23-HH13, located in Building 106, constructed in 2005, equipped with four (4) HVLP guns to paint metal vehicles components, with a maximum primer usage of 5.82 lbs/hr and a maximum topcoat usage of 4.8 lbs/hr, using dry filters to control particulate matter emissions, and exhausting through stack PBS2. This paint booth is also equipped with one (1) 1.5 MMBtu/hr natural gas burner for paint curing.

(24) One (1) surface coating booth, identified as CRN-0106-04-23-PBS1, constructed

in 2007 and located in Building 106, equipped with four (4) high volume low pressure (HVLP) spray applicators used to coat metal military kits, with a maximum primer usage rate of 0.8 gallons per hour and a maximum topcoat usage rate of 0.6 gallons per hour, using dry filters to control particulate matter emissions and exhausting to stack PBS1.

None of the paint booth control devices have unit identification numbers.

(e) Open burning/open detonation, constructed/installed before 1950, consisting of:

(1) Open Burning of Ordnance at the Ammunition Burning Ground, identified as CRN-ABG-01-19-DD43, with a maximum usage of 2.3 MMlb/yr (1,150 tons/yr) of Dunnage; 0.64 MMlb/yr (320 tons/yr) of Explosive; 4.7 MMlb/yr (2,350 tons/yr) of Propellant.

(2) Open Detonation of Ordnance at the Demolition Range and the Surveillance Function Test Range, identified as CRN-DR/SFTR-01-24-KK21, with a combined maximum usage of 0.13 MMlb/yr (65 tons/yr) of Dunnage; 1.6 MMlb/yr (800 tons/yr) of Explosive; 0.52 MMlb/yr (260 tons/yr) of Propellant.

(3) Open Burning of Ordnance at the Old Rifle Range, identified as CRN-ORR-01-24-JJ24, with a maximum usage of 0.15 MMlb/yr (75 tons/yr) of Dunnage; 0.032 MMlb/yr (16 tons/yr) of Explosive; 0.012 MMlb/yr (6 tons/yr) of Propellant.

(4) Fast and Slow Cookoff at the Ordnance Test Area, identified as CRN-OTA-01-29-WW18, with a maximum usage of 10,000 units of various ordnances per year.

(f) Mixing and pouring equipment in Building 200 used as a plastic bonded explosive line, constructed in 1984, consisting of mixing and pouring operations, with a maximum process weight rate of 214 pounds per hour, using a carbon adsorption system with a wet scrubber to control particulate matter emissions.

(g) Explosive bomb loading operations, constructed in 1987, consisting of:

(1) screening and weighing aluminum powder in Building 2714, using a baghouse for particulate control, with a maximum process weight rate of 161.5 pounds per hour;

(2) screening and weighing TNT in Building 153, using a wet scrubber for particulate control, with a maximum process weight rate of 641.8 pounds per hour; and

(3) melting and mixing aluminum powder and TNT in Building 152, using a wet scrubber for particulate control, with a maximum process weight rate of 8,032.5 pounds per hour.

(h) One natural gas-fired rotary kiln furnace in Building 69, used for white phosphorous conversion to phosphoric acid, constructed in 1983, with a maximum process weight rate of 480 pounds per hour, and equipped with an integral variable throat venturi scrubber for particulate control.

(i) Service Station (Gasoline/Diesel Dispensing), identified as CRN-3280-04-17-X23, located in Building 3280, with a maximum usage of 350,000 gallons of unleaded gasoline per year, and 350,000 gallons of diesel per year.

(1) Two (2) above ground vertical fixed-roof cone tanks, storing unleaded gasoline, constructed in 1995, identified as:

(A) CRN-3280-01-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m3), and equipped with a vapor recovery system of 99.9+% removal efficiency;

(B) CRN-3280-02-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m3), and equipped with a vapor recovery system of 99.9+% removal efficiency.

(j) Testing of fuses, boosters, other explosive devices and dissection of batteries, consisting of:

(1) One (1) containment chamber in Building 2167, constructed in 1986, used to test burn pyrotechnic items, with a maximum process weight rate of 0.66 pounds per hour.

(2) Ten (10) test cells in Building 3235, constructed in 1991, used to test lithium batteries, with a maximum throughput of 149 batteries per year, using a vertical packed-bed tower to control particulate matter emissions.

(3) One (1) battery dissection fume hood in Building 3235, permitted to construct in 2007, used to dissect batteries, using no control, with a maximum throughput of 730 batteries per year.

(4) One (1) containment chamber in Building 142, constructed in 1995, used to test detonation of fuses, boosters and other explosive devices, with a maximum process weight rate of 0.05 pounds per hour, using a baghouse to control particulate matter emissions.

(5) One (1) flare testing operation in Building 2869, constructed in 1977, identified as CRN-2869-01-02-V01; using a baghouse for control and having a combined maximum process weight rate less than 100 pounds per hour.

(5) One (1) flare testing operation in Building 366, constructed in 1988, identified as CRN-0366-01-02-V01;both using a baghouse for control and having a combined maximum process weight rate less than 100 pounds per hour.

(k) One (1) contained detonation chamber, identified as P01, constructed 2001, located in Building 3339, with a maximum capacity of 7,500 pounds per hour gross weight of munitions, 750 pounds per hour net explosive weight (NEW), equipped with one (1) baghouse for particulate control, and exhausting to stack S01.

(l) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, located in Building 3345, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

Under NESHAP, Subpart EEE, the mobile plasma treatment system (MPTS) (P02) is considered a new affected facility under 40 CFR 63.1206 (a) (1) (i) (B) and an existing affected facility under 40 CFR 63.1206 (a) (1) (ii) (B).

(m) One (1) diesel-fueled 4160-volt, 1000 kW generator which powers the MPTS, constructed in 2002, exhausting at stack S03.

(n) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, located in Building 3343, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

Under NESHAP, Subpart EEE, the APE 1236 rotary kiln incinerator (P03) is considered a new affected facility under 40 CFR 63.1206 (a) (1) (i) (B) and an existing affected facility under 40 CFR 63.1206 (a) (1) (ii) (B).

(o) One (1) flare manufacturing process located in Buildings 2504 and 145, constructed in 2002, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(p) One (1) flare manufacturing process, located in Building 198, constructed in 2002, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities:

(a) Fuel oil-fired combustion sources with heat inputs less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight:

(1) Two (2) 1.3 MMBtu/hr natural gas/fuel oil-fired boilers, identified as Cleaver Brooks CRN-0180-01-17-W22 and CRN-0180-02-17-W22, constructed in 1999, located in Building 180 [326 IAC 6-2-4]

(2) One (1) 3.75 MMBtu/hr natural gas/#2 fuel oil boiler, identified as CRN-0199-03-23-JJ14, constructed in 2008 and located in Building 199 [326 IAC 6-2-4].

(b) Natural gas-fired combustion sources with inputs less than ten million (10,000,000) Btu per hour, identified as:

(1) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 2, 4, 7,14, 18, 38, 45, 181, 224, 252, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, 2167, 2506, 2516, 2517, 2693, 2720, 2721, 2748, 2749, 2889, 2931, 2987, 2993, 3006 [326 IAC 6-2-3]

(ii) two boilers in each of the following buildings: 2521 [326 IAC 6-2-3]

(iii) One (1) 1.63 MMBtu natural gas-fired boiler, constructed in July 1983, located in Building 74 [326 IAC 6-2-3]

(2) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 5, 7, 8, 10, 34, 36, 40, 47, 66, 74, 77, 105, 128, 180, 363, 365, 366, 966, 1141, 1149, 2036, 2045, 2084, 2518, 2521,2692, 2694, 2807, 2902, 2963, 2995, 3149, 3173,

3188, 3233, 3234, 3235, 3239, 3243, 3250, 3284, 3319, 3324, 3325, 3333, 3334, 3339, 3348, 3422 [326 IAC 6-2-4]

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906, 3168, 3285, 3330C**,** 3373, 3395 [326 IAC 6-2-4]

(iii) three boilers in each of the following buildings: 3287 and 3291[326 IAC 6-2-
6-2-4]

(iv) four boilers in each of the following buildings: 3241, 3251, 3330N, 3330S [326 IAC 6-2-4]

(c) One (1) diesel-fired emergency generator, located at Building 10, with a maximum capacity of 268 horsepower, installed in 2007 with a manufacturer's date of after April 1, 2006, and a displacement of less than 10 liters per cylinder.

Under NSPS, Subpart IIII, the 268 horsepower diesel-fired emergency generator is considered an affected facility.

(d) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6 [326 IAC 8-3-3, 326 IAC 8-3-5].

(e) The following equipment related to manufacturing activities not resulting in the emission of HAP's: brazing, cutting torches, soldering, and welding.

(f) Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment, or vehicles at the source where air emissions from those activities would not be associated with any commercial production process, including the following: brazing, soldering, or welding operations and associated equipment.

(g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following: deburring, buffing, polishing, pneumatic conveying, and woodworking operations.

(h) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat inputs less than six million (6,000,000) Btu per hour.

(i) Equipment powered by internal combustion engines of less than 500,000 Btu/hour capacity, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour. Each internal combustion engine was installed prior to July 11, 2005 and has not been modified since installation.

(j) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage tank of less than 10,500 gallon capacity.

(k) A petroleum fuel, other than gasoline, dispensing facility, having a storage tank of less than 10,500 gallon capacity, and dispensing less than 230,000 gallons per month.

(l) Storage tanks less than one thousand (1,000) gallons in capacity with annual throughputs less than twelve thousand (12,000) gallons.

(m) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary

protective coatings.

(n) Machining where an aqueous cutting coolant continuously floods the machine interface.

(o) Solvent recycling systems with less than 100 gallon batch capacity.

(p) Activities associated with the treatment of wastewater streams with an oil and grease content less than 1% by volume.

(q) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on site sewage treatment facility.

(r) Natural draft cooling towers circulating less than or equal to 340,000 gallons per day.

(s) Quenching operations used with heat treating processes.

(t) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(u) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

(v) Asbestos abatement projects regulated by 326 IAC 14-10.

(w) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.

(x) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.

(y) On-site fire and emergency response training approved by the department.

(z) Gasoline generators not exceeding 110 hp.

(aa) Diesel generators not exceeding 1800 hp.

(bb) Natural gas turbines not exceeding 16,000 hp.

(cc) Stationary fire pumps.

(dd) Filter or coalescer media changeout.

(ee) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(ff) Activities with emissions equal to or less than thresholds:

Lead (Pb = 0.6 ton/year or 3.29 lbs/day
Carbon Monoxide (CO) = 25 lbs/day
Sulfur Dioxide (SO_2) = 5 lbs/hour or 25 lbs/day
Particulate matter (PM) = 5 lbs/hour or 25 lbs/day
Nitrogen Oxides (NOx) = 5 lbs/hour or 25 lbs/day
Volatile Organic Compounds (VOC) = 3 lbs/hour or 15 lbs/day

(1) Alphos tank, located in Building 2521;

(2) Brown oxide line, located in Building 38;

(3) Bubble tester. Located in Building 2931;

(4) Coating, phosphorous, located in Building 1884;

(5) Curing room, located in Building 3148;

(6) Four (4) detonations cells, located in Building 142;

(7) Electrical discharge, located in Building 198;

(8) Environmental chamber, located in Building 2167;

(9) Explosives chamber, located in Building 142;

(10) Explosives mixing, located in Building 200;

(11) Explosives molding, located in Building 126;

(12) Heating oil bath, located in Building 39;

(13) Two (2) hood, fumes, located in 2940;

(14) Hood, vent, located in Building 38;

(15) Infrared dry, located in Building 2036;

(16) Three (3) injection molders, located in Building 198;

(17) IR Heater, located in Building 38;

(18) Oven, located in Building 2940;

(19) Three (3) drying ovens, located in Building 3234;

(20) Laboratory oven, located in Building 109;

(21) Fugitive emissions from painting;

(22) Passivation process, located in Building 1884;

(23) Plating lines A, B, and C, located in Building 3234;

(24) Rust inhibitor, located in Building 1884;

(25) Solvent hand wiping, located in Building 155;

(26) Miscellaneous solvent usage in Building 2728;

(27) Fifty (50) above ground storage tanks;

(28) Twenty-nine (29) underground storage tanks;

(29) One (1) fuel storage tank, located at Building 2760;

(30) Paint stripper, resistant, located in Building 38;

(31) Tank, brighteners, located at Building 1884;

(32) Washer, roller, located in Building 18;

(33) Washout unit, located in Building 18;

(34) Six (6) Underground Storage Tanks, identified as:

(i) CRN-0003-02-17-U21;

(ii) CRN-2737-06-12-M41;

(iii) CRN-2737-07-12-M41;

(iv) CRN-2984-02-17-W22;

(v) CRN-2984-03-17-W22; and

(vi) CRN-3149-02-16-DD12.

(35) One hundred and fifty-eight electric or steam powered air compressors:

(36) One (1) Dispo Spray Booth, Model L130, with a maximum capacity of nine (9) twelve (12) ounce paint cans per month, with no overspray and used for repairing small microwave warfare components consisting of aluminum and glass.

(37) One (1) closed loop conversion process, used to convert ammonium picrate to picric acid with a maximum production capacity of 7 tons of picric acid per day, and exhausting to stacks S2 and V1.

(38) One (1) strand burner, located in Building 142, used for a maximum of 25 tests of differing materials per day, with no pollution control.

(39) One (1) touch up paint booth, identified as CRN-0155-04-17-BB25, located in Building 155 and using a dry filter to control particulate emissions.

(gg) Emissions from research and development activities as defined in 326 IAC 2-7-1(21)(E): One (1) experimental catalytic converter equipped diesel-fired generator, located at the test platform at Building 3235.

(hh) One (1) C-4 extruder process line, located in Building 2172, with a maximum manufacturing capacity of forty (40) 1.2 pound C-4 blocks per minute.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T101-21308-00005, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

Southwest Regional Office Telephone Number: (812) 380-2305
Southwest Regional Office Facsimile Number: (812) 380-2304

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T101-21308-00005 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard
Chicago, Illinois 60604-3590
in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2 (4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1 (3), 326 IAC 1-7-2, 326 IAC 1-7-3 (c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5 (a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.11 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.

(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup CEMS shall be brought online within four (4) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS is back in operation.

(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR Part 63, Subpart EEE.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on June 25, 2001. An updated ERP was submitted December 19, 2001.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1(z)) may result in a significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.
(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
(i) Baseline actual emissions;
(ii) Projected actual emissions;
(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with the following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1 (ll) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2 (c) (3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Emission Unit Description

(a) Thirteen (13) abrasive blasting units, consisting of:

(1) CRN-0104-03-23-HH16, located in Building 104, replaced with previously-identified CRN-2171-01-17-DD22 in 2007, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-0104-03-23-HH16-S.

(2) CRN-0106-02-23-HH13, located in Building 106, constructed in 1988, with a maximum capacity of 3,000 lbs/yr (1.5 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stacks CRN-0106-02-23-HH13-S1, S2.

(3) CRN-2521-07-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2521-07-02-J17-S.

(4) CRN-2521-08-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emission, and exhausting to stack CRN-2521-08-02-J17-S.

(5) CRN-2521-09-2-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2521-09-2-J17-S.

(6) CRN-3234-14-17-U26, located in Building 3234, constructed in 1993, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-3234-14-17-U26-S.

(7) CRN-0227-03-23-HH12, located in Building 227, constructed before 1991, with a maximum capacity of 3,000 lbs/yr (1.5 TPY) abrasive used, using baghouse to control particulate matter emissions, and exhausting to stack CRN-0227-03-23-HH12-S.

(8) CRN-3168-03-17-V28, located in Building 3168, constructed in 1988, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-3168-03-17-V28-S.

(9) CRN-0041-06-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.1 FACILITY OPERATION CONDITIONS (CONTINUED)

Emission Unit Description

(10) CRN-0041-07-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(11) CRN-0041-08-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(12) One (1) barrel blast system, located in Building 107, identified as CRN-0107-06-23-HH13, constructed in 2005, with a maximum throughput rate of 0.48 tons of steel parts per hour and a maximum abrasive usage of 17,875 pounds of steel shots per hour, controlled by a baghouse, and exhausting through stack ABS1.

(13) One (1) vertical descaling machine, located in Building 107, identified as CRN-0107-07-23-HH13, constructed in 2005, with a maximum throughput rate of 1.25 tons of steel parts per hour and a maximum abrasive usage of 143,000 pounds of steel shots per hour, controlled by a baghouse, and exhausting through stack ABS2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from following abrasive blasting units:

(1) CRN-0106-02-23-HH13, located in Building 106;
(2) CRN-2521-08-02-J17, located in Building 2521;
(3) CRN-2521-09-02-J17, located in Building 2521;
(4) CRN-3234-14-17-U26, located in Building 3234;
(5) CRN-3168-03-17-V28, located in Building 3168;

shall not exceed 0.551 pounds per hour when operating at a process weight rate less than 100 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the abrasive blasting units shall not exceed the limitations in the table below:

Unit ID	Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
CRN-0107-06-23-HH13	Barrel Blast System	0.48	2.51
CRN-0107-07-23-HH13	Vertical Descaling Machine	1.25	4.76

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.2 PSD Minor Limits [326 IAC 2-2]

In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with PM/PM-10 emission limits listed in the table below:

Unit ID	Unit Description	PM Emission Limit (lbs/hr)	PM-10 Emission Limit (lbs/hr)
CRN-0107-06-23-HH13	Barrel Blast System	1.00	0.50
CRN-0107-07-23-HH13	Vertical Descaling Machine	4.50	2.80

With the above limits, the emissions from the modification in 2005 are limited to less than 25 tons per year for PM and less than 15 tons per year for PM10. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.1.3 Minor Source Modifications [326 IAC 2-7-10.5(d)]

Pursuant to 326 IAC 2-7-10.5(d)(4)(C) (Minor Source Modifications) and Minor Source Modification No.: 101-21188-00005, issued on June 29, 2005, the baghouses for the barrel blast system (CRN-0107-06-23-HH13) and the vertical descaling machine (CRN-0107-07-23-HH13) shall comply with the following limits when the barrel blast system or the vertical descaling machine is in operation:

(a) At least 99% control efficiency; and

(b) No visible emissions.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the barrel blast system and the vertical descaling machine and their control devices.

Compliance Determination Requirements

D.1.5 Particulate Matter (PM and PM-10) Control

(a) In order to comply with Conditions D.1.1, D.1.2, and D.1.3, the filter systems and baghouses for particulate (PM and PM-10) control shall be in operation at all times the abrasive blasting operations are in use and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhausts for stacks ABS1 and ABS2, for the barrel blast system and the vertical descaling machine, shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the barrel blast system and the vertical descaling machine, once per day when the barrel blast system or the vertical descaling machine is in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Broken Bag or Filter System Failure Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature,

flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain a daily record of visible emission notations of stacks ABS1 and ABS2 for the barrel blast system and the vertical descaling machine. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.1.7, the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the barrel blast system and the vertical descaling machine. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Unit Description

(b) Thirty-three (33) boilers, consisting of:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-01-23-GG12 is considered an affected facility.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0115-03-23-GG12-S.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-01-17-W25 is considered an affected facility.

(4) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-03-17-W25 is considered an affected facility.

(5) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-01-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0140-01-17-Y25-S.

(6) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-02-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0140-02-17-Y25-S.

(7) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-01-17-CC23, located in Building 150, constructed in April 1989, with a maximum capacity of 25.2 MMBtu/hr, and exhausting to stack CRN-0150-01-17-CC23-S.

(8) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-03-17-CC23, located in Building 150, constructed in April 1989, with a maximum capacity of 25.2 MMBtu/hr, and exhausting to stack CRN-0150-03-17-CC23-S.

(9) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-01-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 MMBtu/hr, and exhausting to stack CRN-0199-01-23-JJ14-S.

(10) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-02-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 MMBtu/hr, and exhausting to stack CRN-0199-02-23-JJ14-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.2 FACILITY OPERATION CONDITIONS (CONTINUED)

Emission Unit Description

(11) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 MMBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 MMBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

(13) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 MMBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(14) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(15) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(16) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(17) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 MMBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(18) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 MMBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(19) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(20) Hurst natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-03-17-U26, located in Building 41, constructed in 2008, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(21) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 MMBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.2 FACILITY OPERATION CONDITIONS (CONTINUED)

Emission Unit Description

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-02-23-GG12 is considered an affected facility.

(23) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(24) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 MMBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(25) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 MMBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(26) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 MMBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(27) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 MMBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(28) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 MMBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(29) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 MMBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(30) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 MMBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(31) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 MMBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.2 FACILITY OPERATION CONDITIONS (CONTINUED)

Emission Unit Description

(32) Superior natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-2674-01-00-0001, located in Building 2674, constructed in 1985, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-2674-01-00-0001-S.

(33) Superior natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-2674-02-00-0001, located in Building 2674, constructed in 1985, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-2674-02-00-0001-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter Emissions Limitations [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the boilers which were existing and in operation or which received permits to construct prior to September 21, 1983, shall not exceed 0.05 pounds per million Btu heat input (lb/MMBtu).

Unit ID	Building Location	Heat Input Capacity (MMBtu/hr)
CRN-0041-01-17-U26	Building 41	10.00
CRN-0041-02-17-U26	Building 41	6.90
CRN-0064-01-10-T27	Building 64	10.00
CRN-0140-01-17-Y25	Building 140	6.20
CRN-0140-02-17-Y25	Building 140	6.20
CRN-0149-01-10-S30	Building 149	6.70
CRN-0149-02-10-S30	Building 149	6.70
CRN-0199-01-23-JJ14	Building 199	17.50
CRN-0199-02-23-JJ14	Building 199	17.50
CRN-1819-01-17-Y23	Building 1819	3.35
CRN-1819-02-17-Y23	Building 1819	3.35
CRN-2517-01-10-T21	Building 2517	4.85
CRN-2517-02-10-T21	Building 2517	4.85
CRN-2523-01-9-K18	Building 2523	17.4
CRN-2523-02-9-K18	Building 2523	17.4
CRN-2692-01-17-W27	Building 2692	3.01

D.2.2 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the boilers listed below, receiving permits to construct after September 21, 1983, shall not exceed the following (in pound per million Btu heat input (lb/MMBtu) for each boiler):

Unit ID	Building Location	Installation Date	Pt (lb/MMBtu)
CRN-2674-01-00-0001	Building 2674	1985	0.24
CRN-2674-02-00-0001	Building 2674	1985	0.24
CRN-0115-03-23-GG12	Building 115	1985	0.24
CRN-2737-01-12-M41	Building 2737	1987	0.22
CRN-2737-02-12-M14	Building 2737	1987	0.22
CRN-2737-03-12-M41	Building 2737	1987	0.22
CRN-0150-01-17-CC23	Building 150	1989	0.21
CRN-0150-03-17-CC23	Building 150	1989	0.21
CRN-3234-02-17-U26	Building 3234	1992	0.20
CRN-3234-03-17-U26	Building 3234	1992	0.20
CRN-0128-03-17-W25	Building 128	1997	0.18
CRN-0128-01-17-W25	Building 128	1997	0.18
CRN-0115-01-23-GG12	Building 115	1997	0.18
CRN-0115-02-23-GG12	Building 115	1997	0.18
CRN-0180-01-17-W22	Building 180	1999	0.18
CRN-0180-02-17-W22	Building 180	1999	0.18
CRN-0041-03-17-U26	Building 41	2008	0.18

D.2.3 Sulfur Dioxide Emissions Limitations [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2, the following boilers shall each be limited to five tenths (0.5) pounds of sulfur dioxide (SO_2) per million Btu when combusting distillate oil:

Unit ID	Building Location
CRN-0199-01-23-JJ14	Building 199
CRN-0199-02-23-JJ14	Building 199
CRN-2523-01-9-K18	Building 2523
CRN-2523-02-9-K18	Building 2523
CRN-0115-03-23-GG12	Building 115
CRN-0128-03-17-W25	Building 128
CRN-0150-01-17-CC23	Building 150
CRN-0150-03-17-CC23	Building 150
CRN-2737-01-12-M41	Building 2737
CRN-2737-02-12-M41	Building 2737
CRN-2737-03-12-M41	Building 2737

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

Compliance Determination Requirements

D.2.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler, using 40 CFR Part 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the following boiler stack exhausts shall be performed once per day during normal daylight operations when combusting No. 2 fuel oil only. A trained employee shall record whether emissions are normal or abnormal.

Unit ID	Building Location
CRN-0199-01-23-JJ14	Building 199
CRN-0199-02-23-JJ14	Building 199
CRN-2523-01-9-K18	Building 2523
CRN-2523-02-9-K18	Building 2523
CRN-0115-03-23-GG12	Building 115
CRN-0128-03-17-W25	Building 128
CRN-0150-01-17-CC23	Building 150
CRN-0150-03-17-CC23	Building 150
CRN-2737-01-12-M41	Building 2737
CRN-2737-02-12-M41	Building 2737
CRN-2737-03-12-M41	Building 2737

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the " responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer, if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain a daily record of visible emission notations of the boiler stack exhausts when combusting fuel oil only. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.8 Reporting Requirements

(a) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirement, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported for the boilers listed in Condition D.2.3. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A semi-annual summary of the information to document compliance with Condition D.2.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

Emission Unit Description

(c) Three (3) Carpentry Shops, identified as:

(1) CRN-0056-04-10-T21, located in Building 56, with a maximum wood usage of 74,880 board feet per year and a maximum process weight rate of 0.14 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0056-04-10-T21-S. [40 CFR Part 64]

(2) CRN-0224-02-23-HH12, located in Building 224, with a maximum wood usage of 1,000,000 board feet per year and maximum process weight rate of 0.69 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0224-02-23-HH12-S. [40 CFR Part 64]

(3) CRN-2720-04-23-GG12, located in Building 2720, with a maximum wood usage of 14,000 board feet per year and a maximum process weight rate of 0.25 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-2720-04-23-GG12-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the carpentry shops shall not exceed the limitations in the table below:

Unit ID	Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
CRN-0056-04-10-T21	Carpentry Shop	0.14	1.10
CRN-0224-02-23-HH12	Carpentry Shop	0.69	3.20
CRN-2720-04-23-GG12	Carpentry Shop	0.25	1.62

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the three (3) carpentry shop operations and their control devices.

Compliance Determination Requirements

D.3.3 Particulate Matter (PM) [40 CFR Part 64]

The cyclones for PM control shall be in operation at all times when the carpentry shop operations are in use.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.3.4 Visible Emissions Notations [40 CFR Part 64]

(a) Visible emission notations of the cyclone stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.5 Cyclone Failure Detection [40 CFR Part 64]

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.4, the Permittee shall maintain a daily record of visible emission notations of the cyclone stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Unit Description

(d) Twenty-six (26) paint booths, consisting of:

(1) CRN-0104-01-23-HH16, exhausting to stack CRN-0104-01-23-HH16-S, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, exhausting to stack CRN-0104-02-23-HH16-S, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(3) CRN-0107-01-23-HH13, exhausting to stack CRN-0107-01-23-HH13-S, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(4) CRN-0107-02-23-HH13, exhausting to stack CRN-0107-02-23-HH13-S, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-03-23-HH13, exhausting to stack CRN-0107-03-23-HH13-S, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(6) CRN-0107-04-23-HH13, exhausting to stack CRN-0107-04-23-HH13**-S**, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(7) CRN-0136-01-17-Z26, exhausting to stack CRN-0136-01-17-Z26-S, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(8) CRN-0155-02-17-BB25, exhausting to stack CRN-0155-02-17-BB25-S, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(9) CRN-0155-03-17-BB25, exhausting to stack CRN-0155-03-17-BB25-S, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(10) CRN-0169-01-24-EE22, exhausting to stack CRN-0169-01-24-EE22-S, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(11) CRN-2520-01-17-Y26, exhausting to stack CRN-2520-01-17-Y26-S, located in Building 2520, constructed in 1968, using a dry filter to control particulate matter emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.4 FACILITY OPERATION CONDITIONS (Continued)

Emission Unit Description

(12) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, exhausting to stack CRN-2728-01-12-N42-S, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, exhausting to stack CRN-2728-02-12-N42-S, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, exhausting to stack CRN-2728-03-12-N42-S, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(13) CRN-3234-09-17-U26, exhausting to stack CRN-3234-09-17-U26-S, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(14) CRN-3234-10-17-U26, exhausting to stack CRN-3234-10-17-U26-S, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(15) CRN-3234-15-17-U26, exhausting to stack CRN-3234-15-17-U26-S, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(16) CRN-0198-01-23-II15, exhausting to stack CRN-0198-01-23-II15-S, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(17) CRN-0227-01-23-HH12, exhausting to stack CRN-0227-01-23-HH12-S, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(18) CRN-0227-02-23-HH12, exhausting to stack CRN-0227-02-23-HH12-S, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(19) CRN-2697-01-17-W24, exhausting to stack CRN-2697-01-17-W24-S, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions..

(20) CRN-2805-02-23-GG19, exhausting to stack CRN-2805-02-23-GG19-S, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.4 FACILITY OPERATION CONDITIONS (Continued)

Emission Unit Description

(21) CRN-2805-03-23-GG19, exhausting to stack CRN-2805-03-23-GG19-S, located in Building 2805, constructed in 2006, using a dry filter to control particulate matter emissions.

(22) CRN-3168-02-17-V28, exhausting to stack CRN-3168-02-17-V28-S, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

(23) CRN-0106-03-23-HH13, located in Building 106, constructed in 2005, equipped with four (4) HVLP guns to paint metal vehicles components, with a maximum primer usage of 5.82 lbs/hr and a maximum topcoat usage of 4.8 lbs/hr, using dry filters to control particulate matter emissions, and exhausting through stack PBS2. This paint booth is also equipped with one (1) 1.5 MMBtu/hr natural gas burner for paint curing.

(24) One (1) surface coating booth, identified as CRN-0106-04-23-PBS1, constructed in 2007 and located in Building 106, equipped with four (4) high volume low pressure (HVLP) spray applicators used to coat metal military kits, with a maximum primer usage rate of 0.8 gallons per hour and a maximum topcoat usage rate of 0.6 gallons per hour, using dry filters to control particulate matter emissions and exhausting to stack PBS1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 PSD Minor Limits [326 IAC 2-2]

Pursuant to Significant Source Modification No.: 101-11153-00005 issued on October 12, 1999:

the VOC input to the three paint booths CRN-2728-01-12-N42 (Building 2728), CRN-2728-02-12-N42 (Building 2728), and CRN-2728-03-12-N42 (Building 2728) shall be limited to less than 39.0 tons, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit the VOC emissions to less than 40 tons per year and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.4.2 General Provisions Relating to VOC Rules: Military Specifications [326 IAC 8-1-7] and Site-Specific RACT Plan [326 IAC 8-1-5]

Pursuant to 326 IAC 8-1-7 (Military Specifications) and Significant Source Modification No.: 101-11153-00005, the volatile organic compound (VOC) content of coating delivered to the following:

Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of one hundred twenty (120) units per hour, consisting of the following units:

(1) CRN-2728-01-12-N42, located in Building 2728, constructed in 1999;
(2) CRN-2728-02-12-N42, located in Building 2728, constructed in 1999;

(3) CRN-2728-03-12-N42, located in Building 2728, constructed in 1999,

shall be limited to 5.45 pounds of VOCs per gallon of coating less water, for air dried coatings, averaged on a daily basis for each paint booth.

D.4.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to each of the following paint booths shall be limited to 3.5 pounds of VOCs per gallon of coating less water averaged on a daily basis for each paint booth:

(1) CRN-3234-09-17-U26, located in Building 3234, constructed in 1994;
(2) CRN-3234-10-17-U26, located in Building 3234, constructed in 1994;
(3) CRN-3234-15-17-U26, located in Building 3234, constructed in 1994;
(4) CRN-0227-01-23-HH12, located in Building 227, constructed prior to 1991;
(5) CRN-0227-02-23-HH12, located in Building 227, constructed prior to 1991;
(6) CRN-2805-03-23-GG19, located in Building 2805, constructed in 2006;
(7) CRN-0106-03-23-HH13, located in Building 106, constructed in 2005;
(8) CRN-0106-04-23-PBS1, located in Building 106, constructed in 2007.
(9) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983;
(10) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983;
(11) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980;
(12) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980;
(13) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980;
(14) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980;
(15) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986;
(16) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986; and
(17) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.4.4 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate (PM) emissions from each of the surface coating operations shall be controlled by a dry particulate filter, water wash, or an equivalent control device. The Permittee shall operate the control devices in accordance with manufacturer's specifications.

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the surface coating operations and their control devices.

Compliance Determination Requirements

D.4.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-4][326 IAC 8-1-2(a)]

Compliance with the VOC content and usage limitations contained in Conditions D.4.1(a), D.4.2, and D.4.3 shall be determined as follows:

(a) Pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4; or

(b) Pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily

basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum (C) \times U) / \sum U]$$

Where:
A is the volume weighted average in pounds of VOC per gallon less water as applied;
C is the VOC content of the coating in pounds of VOC per gallon less water as applied; and
U is the usage rate of the coating in gallons per day.

D.4.7 Particulate Matter (PM and PM-10)

In order to comply with Conditions D.4.1(b), D.4.1(c), and D.4.4, the dry filters or water walls for PM and PM-10 control shall be in operation at all times the surface coating operations are in use and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.4.8 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28). Daily inspections shall be performed for the water wall~~s~~ to verify the level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water wall. To monitor the performance of the water wall and the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28). If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28) and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.4.9 Record Keeping Requirements

(a) To document compliance with Conditions D.4.1 and D.4.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1 and D.4.2.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The volume weighted VOC content of the coatings used for each month;

(4) The cleanup solvent usage for each month;

(5) The total VOC usage for each month; and

(b) To document compliance with Condition D.4.3, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.3.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The volume weighted VOC content of the coatings used for each day;

(4) The cleanup solvent usage for each day;

(5) The total VOC usage for each day; and

(c) To document compliance with Condition D.4.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1~~(a)~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS

Emission Unit Description

(e) Open burning/open detonation, constructed/installed before 1950, consisting of:

(1) Open Burning of Ordnance at the Ammunition Burning Ground, identified as CRN-ABG-01-19-DD43, with a maximum usage of 2.3 MMlb/yr (1,150 tons/yr) of Dunnage; 0.64 MMlb/yr (320 tons/yr) of Explosive; 4.7 MMlb/yr (2350 tons/yr) of Propellant.

(2) Open Detonation of Ordnance at the Demolition Range and the Surveillance Function Test Range, identified as CRN-DR/SFTR-01-24-KK21, with a combined maximum usage of 0.13 MMlb/yr (65 tons/yr) of Dunnage; 1.6 MMlb/yr (800 tons/yr) of Explosive; 0.52 MMlb/yr (260 tons/yr) of Propellant.

(3) Open Burning of Ordnance at the Old Rifle Range, identified as CRN-ORR-01-24-JJ24, with a maximum usage of 0.15 MMlb/yr (75 tons/yr) of Dunnage; 0.032 MMlb/yr (16 tons/yr) of Explosive; 0.012 MMlb/yr (6 tons/yr) of Propellant.

(4) Fast and Slow Cookoff at the Ordnance Test Area, identified as CRN-OTA-01-29-WW18, with a maximum usage of 10,000 units of various ordnance per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 RCRA Air Standards and Limitations

(a) The Permittee shall comply with all applicable provisions of 40 CFR 264, Subpart CC.

(b) The Permittee shall notify the Regional Administrator upon planning to treat more than 70 shots per event at the Demolition Range.

(c) The Permittee shall comply with all self-implementing provisions of any future air regulations promulgated under the provisions of Section 3004(n) of RCRA, as amended by Hazardous and Solid Waste Amendments of 1984 (HSWA).

(d) The Permittee shall not exceed the material quantities as follows:

(1) Ammunition Burning Grounds (ABG)

Unit Number	Material	Limited Treatment Quantity (NEW)	
		8-hour Period (pounds)	Quarterly Period (tons)
3a-ABG	Propellants	75,000	3,412.5
3b-ABG	Explosives	25,000	1,137.5
3c-ABG	Production Scrap	75,000	3,412.5
6-ABG	Red Phosphorous	1,600	72.8
7-ABG	Pyrotechnics	200	9.1
8-ABG	Black Powder Slurry	250	11.4
10-ABG	Contaminated Sludges	2,000	91.0
11-ABG	Red Phosphorous Sludge	200	9.1
12-ABG	Explosives/Propellants/ Pyrotechnics	300	13.7

13-ABG	Explosives/Pyrotechnics	50,000	2,275.0
4-ABG	Flammable Liquids/Explosives	200	9.1
5-ABG	Flammable liquids contaminated with reactive materials	300	13.7
9-ABG	Contaminated Waste Materials	400	18.2

(2) Old Rifle Range (ORR)

Unit Number	Material	Limited Treatment Quantity (NEW)	
		8-hour Period (pounds)	Quarterly Period (tons)
3a-ORR	Yellow D	6,000	273.0
3b-ORR	Projectile Bodies and Yellow D contaminated materials	9,000	409.5

(3) Demolition Range

Unit Number	Material	Limited Treatment Quantity (NEW)	
		24-hour Period (pounds)	Quarterly Period (tons)
3-DR	Explosives	55,000	2,502.5

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.5.2 Record Keeping Requirements

(a) To document compliance with Condition D.5.1(d), the Permittee shall maintain records detailing the type and amount of waste treated and records of all materials open burned and open detonated.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.3 Reporting Requirements

(a) To document compliance with Condition D.5.1(d), the Permittee shall submit a quarterly report detailing all materials open burned and open detonated using the report form located at the end of this permit, or their equivalent.

(b) All quarterly reports shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS

Emission Unit Description

(f) Mixing and pouring equipment in Building 200 used as a plastic bonded explosive line, constructed in 1984, consisting of mixing and pouring operations, with a maximum process weight rate of 214 pounds per hour, using a carbon adsorption system with a wet scrubber to control particulate matter emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the mixing and pouring equipment shall not exceed 0.93 pounds per hour when operating at a process weight rate of 0.11 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the mixing and pouring equipment and its control device.

Compliance Determination Requirements

D.6.3 Particulate Matter (PM)

In order to comply with Condition D.6.1, the scrubber shall be operated at all times the mixing and pouring operations are in use and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.6.4 Visible Emissions Notations

(a) Visible emission notations of the wet scrubber stack exhaust from the mixing and pouring operations shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.6.5 Scrubber Operating Condition

(a) The Permittee shall monitor and record the pressure drop of the scrubber once per day. When for any one reading, the pressure drop across the scrubber is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.6.6 Record Keeping Requirements

(a) To document compliance with Condition D.6.4, the Permittee shall maintain a daily record of visible emission notations of the wet scrubber stack exhaust from the mixing and pouring operations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.6.5, the Permittee shall maintain a daily record of the pressure drop across the scrubber controlling the mixing and pouring operations. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.7 FACILITY OPERATION CONDITIONS

Emission Unit Description

(g) Explosive bomb loading operations, constructed in 1987, consisting of:

(1) screening and weighing aluminum powder in Building 2714, using a baghouse for particulate control, with a maximum process weight rate of 161.5 pounds per hour;

(2) screening and weighing TNT in Building 153, using a wet scrubber for particulate control, with a maximum process weight rate of 641.8 pounds per hour; and

(3) melting and mixing aluminum powder and TNT in Building 152, using a wet scrubber for particulate control, with a maximum process weight rate of 8,032.5 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the explosive bomb loading operations shall not exceed the limitations in the table below:

Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Explosive Bomb Loading Operation (Screening and Weighing Aluminum Powder in Building 2714)	0.081	0.13
Explosive Bomb Loading Operation (Screening and Weighing TNT in Building 153)	0.32	1.91
Explosive Bomb Loading Operation (Melting and Mixing Aluminum Powder in Building 152)	4.02	10.41

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.7.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the explosive bomb loading operations and their control devices.

Compliance Determination Requirements

D.7.3 Particulate Matter (PM)

(a) In order to comply with Condition D.7.1, the baghouse and wet scrubbers for PM control shall be in operation at all times the explosive bomb loading operations are in use and the Permittee shall operate the control devices in accordance with manufacturer's

specifications.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.7.4 Visible Emissions Notations

(a) Visible emission notations of the baghouse and wet scrubber stack exhausts from the explosive bomb loading operations shall be performed once per day during normal daylight operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.7.5 Scrubber Operating Condition

(a) The Permittee shall monitor and record the pressure drop of the wet scrubbers, used in conjunction with the screening and weighing of TNT in Building 153 and the melting and mixing of aluminum powder and TNT in Building 152, once per day. When for any one reading, the pressure drop across the scrubbers is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

D.7.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the explosive bomb loading operation (screening and weighing aluminum powder in Building 2714), at least once per day when the Explosive Bomb Loading Operation (screening and weighing

aluminum powder in Building 2714) is in use. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.7.7 Broken or Failed Bag Detection

For the baghouse used in conjunction with the explosive bomb loading operation (screening and weighing aluminum powder in Building 2714):

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.7.8 Record Keeping Requirements

(a) To document compliance with Condition D.7.4, the Permittee shall maintain a daily record of visible emission notations of the baghouse and wet scrubber stack exhausts from the explosive bomb loading operations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.7.5, the Permittee shall maintain a daily record of the pressure drop across the scrubbers controlling the explosive bomb loading operations (screening and weighing of TNT in Building 153 and the melting and mixing of aluminum powder and TNT in Building 152). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(c) To document compliance with Condition D.7.6, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the explosive bomb loading operation (screening and weighing aluminum powder). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.8 FACILITY OPERATION CONDITIONS

Emission Unit Description

(h) One natural gas-fired rotary kiln furnace in Building 69, used for white phosphorous conversion to phosphoric acid, constructed in 1983, with a maximum process weight rate of 480 pounds per hour, and equipped with an integral variable throat venturi scrubber for particulate control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the rotary kiln shall not exceed 1.58 pounds per hour when operating at a process weight rate of 0.24 tons per hour.

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.8.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the rotary kiln furnace and its control device.

Compliance Determination Requirements

D.8.3 Particulate Matter (PM)

In order to comply with Condition D.8.1, the variable throat venturi scrubber for PM control shall be in operation at all times the rotary kiln furnace is in operation and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.8.4 Visible Emissions Notations

(a) Visible emission notations of the variable throat venturi scrubber stack exhaust from the rotary kiln furnace shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.8.5 Record Keeping Requirements

(a) To document compliance with Condition D.8.4, the Permittee shall maintain a daily record of visible emission notations of the variable throat venturi scrubber stack exhaust from the rotary kiln furnace. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.9 FACILITY OPERATION CONDITIONS

Emission Unit Description

(i) Service Station (Gasoline/Diesel Dispensing), identified as CRN-3280-04-17-X23, located in Building 3280, with a maximum usage of 350,000 gallons of unleaded gasoline per year; and 350,000 gallons of diesel per year.

(1) Two (2) above ground vertical fixed-roof cone tanks, storing unleaded gasoline, constructed in 1995, identified as:

(A) CRN-3280-01-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m^3), and equipped with a vapor recovery system of 99.9+% removal efficiency;

(B) CRN-3280-02-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m^3), and equipped with a vapor recovery system of 99.9+% removal efficiency.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.9.1 Gasoline Dispensing Facilities [326 IAC 8-4-6]

Pursuant to 326 IAC 8-4-6 (Gasoline Dispensing Facilities),

(a) No owner or operator shall allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:
(1) A submerged fill pipe.
(2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.
(3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.

(b) If the owner or the employees of the owner are not present during loading, it shall be the responsibility of the owner or the operator of the transport to make certain the vapor balance system is connected between the transport and the storage tank and is operating according to manufacturer's specifications.

D.9.2 Leaks from transports and vapor collection systems; records), [326 IAC 8-4-9]

Pursuant to 326 IAC 8-4-9 (Leaks from transports and vapor collection systems; records), the owner or operator of a vapor balance system or vapor control system shall:

(a) Design and operate the applicable system and the gasoline loading equipment in a manner that prevents:

(1) Gauge pressure from exceeding four thousand five hundred (4,500) pascals (eighteen (18) inches of H2O) and a vacuum from exceeding one thousand five hundred (1,500) pascals (six (6) inches of H2O) in the gasoline transport;

and

(2) Avoidable visible liquid leaks during loading or unloading operations at gasoline

dispensing facilities, bulk plants, and bulk terminals; and

(b) Within fifteen (15) days, repair and retest a vapor balance, collection, or control system that exceeds the limits in subdivision (a).

(c) Maintain records of all certification testing, identifying the following:

(1) The vapor balance, vapor collection, or vapor control system.

(2) The date of the test and, if applicable, retest.

(3) The results of the test and, if applicable, retest.

The records shall be maintained in a legible, readily available condition for at least two (2) years after the date the testing and, if applicable, retesting were completed.

(d) During compliance tests conducted under 326 IAC 3-6 (stack testing), each vapor balance or control system shall be tested applying the standards described in 326 IAC 8-4-9 (d)(1)(B). Testers shall use 40 CFR 60, Appendix A, Method 21 to determine if there are any leaks from the hatches and the flanges of the gasoline transports. If any leak is detected, the transport cannot be used for the capacity of the compliance test of the bulk gas terminal. The threshold for leaks shall be as follows:

(1) Five hundred (500) parts per million methane for all bulk gas terminals subject to NESHAP/MACT (40 CFR 63, Subpart R).

(2) Ten thousand (10,000) parts per million methane for all bulk gas terminals subject to New Source Performance Standards (40 CFR 60, Subpart XX) and for all other bulk gas terminals.

D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the service station and its control device.

Compliance Determination Requirements

D.9.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 8-4-6(l)]

The Permittee is required to retest all vapor collection and control systems for vapor leakage and blockage, and successfully pass the test, at least every five (5) years or upon major system replacement or modification. A major system modification is considered to be replacing, repairing, or upgrading seventy five percent (75%) or more of vapor collection and control system of the facility.

SECTION D.10 FACILITY OPERATION CONDITIONS

Emission Unit Description

(j) Testing of fuses, boosters, other explosive devices and dissection of batteries, consisting of:

(1) One (1) containment chamber in Building 2167, constructed in 1986, used to test burn pyrotechnic items, with a maximum process weight rate of 0.66 pounds per hour.

(2) Ten (10) test cell**s** in Building 3235, constructed in 1991, used to test lithium batteries, with a maximum throughput of 149 batteries per year, using a vertical packed-bed tower to control particulate matter emissions.

(3) One (1) battery dissection fume hood in Building 3235, permitted to construct in 2007, used to dissect batteries, using a scrubber for control, with a maximum throughput of 730 batteries per year.

(4) One (1) containment chamber in Building 142, constructed in 1995, used to test detonation of fuses, boosters and other explosive devices, with a maximum process weight rate of 0.05 pounds per hour, using a baghouse to control particulate matter emissions.

(5) One (1) flare testing operation in Building 2869, constructed in 1977, identified as CRN-2869-01-02-V01; using a baghouse for control and having a combined maximum process weight rate less than 100 pounds per hour.

(6) One (1) flare testing operation in Building 366, constructed in 1988, identified as CRN-0366-01-02-V01; using a baghouse for control and having a combined maximum process weight rate less than 100 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.10.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the testing of fuses, boosters and other explosive devices shall not exceed the limitations in the table below:

Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Testing of Fuses, Boosters and Other Explosive Devices (Containment Chamber in Building 2167)	< 0.05	< 0.551
Testing of Fuses, Boosters and Other Explosive Devices (Test Cells in Building 3235)	< 0.05	< 0.551
Testing of Fuses, Boosters and Other Explosive Devices (Containment Chamber in Building 142)	< 0.05	< 0.551
Testing of Fuses, Boosters and Other Explosive Devices (Flare Testing in Buildings 2869 and 366)	< 0.05	< 0.551

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.10.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.10.3 Particulate Matter (PM)

(a) In order to comply with Condition D.10.1, the vertical packed bed tower and baghouse for PM control shall be in operation at all times when the testing operations are in use and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.10.4 Battery Dissection

The Permittee shall record the Manufacturer's Safety Data Sheet serial number for each battery dissected and the number of batteries dissected per day.

D.10.5 Visible Emissions Notations

(a) Visible emission notations of the vertical packed-bed tower, battery dissection fume hood and baghouse stack exhausts from the testing operations shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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D.10.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the containment chamber in Building 142, at least once per day when the testing unit is in operation. The Permittee shall record the pressure drop across the baghouses used in conjunction with the flare testing operations in Buildings 2869 and 366, at least once per day when the flare testing units are in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.10.7 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.10.8 Vertical Packed-Bed Tower Failure Detection

In the event that a vertical packed-bed tower failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.10.9 Record Keeping Requirements

(a) To document compliance with Condition D.10.4, the Permittee shall maintain daily records of the number of batteries dissected and each batteries Manufacturer's Safety Data Sheet serial number.

(b) To document compliance with Condition D.10.5, the Permittee shall maintain a daily record of visible emission notations of the vertical packed-bed tower, battery dissection fume hood and baghouse stack exhausts from the dissection of batteries, testing of fuses, boosters and other explosive devices. The Permittee shall include in its daily

record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.10.6, the Permittee shall maintain a daily record of the pressure drop across the baghouse used on conjunction with the containment chamber in Building 142. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) To document compliance with Condition D.10.6, the Permittee shall maintain a daily record of the pressure drop across the baghouse used on conjunction with the flare testing operations in Building 2869 and 366. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.11 FACILITY OPERATION CONDITIONS

Emission Unit Description

Insignificant Activities:

(a) Fuel oil-fired combustion sources with heat input less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.

(1) Two (2) 1.3 MMBtu/hr natural gas/fuel oil-fired boilers, identified as Cleaver Brooks CRN-0180-01-17-W22 and CRN-0180-02-17-W22, constructed in 1999, located in Building 180. [326 IAC 6-2-4]

(2) One (1) 3.75 MMBtu/hr natural gas/#2 fuel oil boiler, identified as CRN-0199-03-23-JJ14, constructed in 2008 and located in Building 199 [326 IAC 6-2-4].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.11.1 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emissions for Sources of Indirect Heating):

(a) particulate (PM) emissions from the two (2) 1.3 MMBtu/hr fuel-oil fired boilers, and the 3.75 MMBtu/hr boiler, all constructed after September 21, 1983 and located in Buildings 180 and 199, shall not exceed 0.18 pound per million Btu heat input (lb/MMBtu) each.

SECTION D.12 FACILITY OPERATION CONDITIONS

Emission Unit Description

Insignificant Activities:

(b) Natural gas-fired combustion sources with inputs less than ten million (10,000,000) Btu per hour, identified as:

(1) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 2, 4, 7,14, 18, 38, 45, 181, 224, 252, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, 2167, 2506, 2516, 2517, 2693, 2720, 2721, 2748, 2749, 2889, 2931, 2987, 2993, 3006 [326 IAC 6-2-3]

(ii) two boilers in each of the following buildings: 2521 [326 IAC 6-2-3]

(iii) One (1) 1.63 MMBtu natural gas-fired boiler, constructed in July 1983, located in Building 74 [326 IAC 6-2-3]

(2) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 5, 7, 8, 10, 34, 36, 40, 47, 66, 74, 77, 105, 128, 180, 363, 365, 366, 966, 1141, 1149, 2036, 2045, 2084, 2518, 2521, 2692, 2694, 2807, 2902, 2963, 2995, 3149, 3173, 3188, 3233, 3234, 3235, 3239, 3243, 3250, 3284, 3319, 3324, 3325, 3330C, 3333, 3334, 3339, 3348, 3422 [326 IAC 6-2-4]

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906, 3168, 3285, 3330C, 3373, 3395 [326 IAC 6-2-4]

(iii) three boilers in each of the following buildings: 3287 [326 IAC 6-2-4]

(iv) four boilers in each of the following buildings: 3241, 3251, 3330N, 3330S [326 IAC 6-2-4]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.12.1 Particulate Matter Emissions Limitations [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emissions for Sources of Indirect Heating), the PM emissions from the boilers listed in subsection (1) above, which were existing and in operation prior to September 21, 1983, shall not exceed 0.05 pounds per million Btu heat input (lb/MMBtu).

D.12.2 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Source of Indirect Heating), particulate (PM) emissions from the boilers listed in subsection (2) above, which were constructed after September 21, 1983, shall not exceed the following (in pounds per million Btu heat input

(lb/MMBtu) for each boiler).

Building Location	Installation Date	Pt (lb/MMBtu)
7, 74, 2521	1983 (after September 21)	0.28
5,36,2694,2807	1984	0.26
66,2035,2036	1985	0.24
34,40,47,77,363,365,3149	1986	0.23
366,3168,3188	1987	0.22
364,2045,3173	1989	0.21
39,3239	1990	0.21
8,2902	1991	0.21
10,3233,3234	1992	0.20
2963,3235,3241,3243,3250,3330N, 3330S,3330C	1993	0.19
3251	1994	0.19
2995,3168,3284,3287	1995	0.19
3285,3291	1996	0.19
3319	1998	0.18
180,3324	1999	0.18
2518	2000	0.18
180,3334	2001	0.18
2084,3339	2002	0.18
3325,3333	2004	0.18
3291, 3330C	2008	0.18

SECTION D.13 FACILITY OPERATION CONDITIONS

Emission Unit Description

(k) One (1) contained detonation chamber, identified as P01, constructed in 2001, located in building 3339, with a maximum capacity of 7,500 pounds per hour gross weight of munitions, 750 pounds per hour net explosive weight (NEW), equipped with one (1) baghouse for particulate control, and exhausting to stack S01.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.13.1 PSD Minor Limits [326 IAC 2-2]

(a) The input to the Contained Detonation Chamber (P01) shall not exceed 1,700 tons of net explosive weight per consecutive twelve (12) month period, with compliance determined at the end of each month.

(b) The carbon monoxide (CO) emissions from the Contained Detonation Chamber shall not exceed 0.0568 pounds of CO per pound of net explosive weight (NEW) treated.

(c) The nitrogen oxide (NOx) emissions from the Contained Detonation Chamber shall not exceed 0.0085 pounds of NOx per pound of net explosive weight (NEW) treated.

(d) The particulate matter (PM) emissions from the Contained Detonation Chamber shall not exceed 0.0003 pounds of PM per pound of net explosive weight (NEW) treated .

(e) The particulate matter, with a diameter of less than 10 micrometers (PM-10), emissions from the Contained Detonation Chamber shall not exceed 0.0003 pounds of PM-10 per pound of net explosive weight (NEW) treated.

Compliance with these limits and Condition D14.1 shall limit the carbon monoxide emissions to less than 100 tons per year, the nitrogen oxide emissions to less than 40 tons per year, the PM emissions to less than 25 tons per year, and the PM-10 emissions to less than 15 tons per year and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.13.2 RCRA Air Standards and Limitations

The Permittee shall comply with all applicable provisions of RCRA, as amended by the Hazardous and Solid Waste amendments of 1984 (HSWA).

D.13.3 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate (PM) emissions from the contained detonation chamber shall not exceed 2.13 pounds per hour when operating at a process weight rate of 750 pounds per hour of net explosive weight.

D.13.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.13.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) Within 90 days after issuance of this Part 70 permit or operation of the detonation

chamber, the Permittee shall conduct a one-time stack test to verify the emission factor used to determine the potential CO emissions from the detonation chamber baghouse utilizing methods as approved by the Commissioner.

(b) Within 90 days after issuance of this Part 70 permit or operation of the detonation chamber, in order to demonstrate compliance with Conditions D.13.1 and D.13.3, the Permittee shall test for PM, and PM-10 on the detonation chamber baghouse utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Testing shall be conducted in accordance with Section C - Performance Testing.

D.13.6 Particulate Matter (PM and PM-10)

(a) In order to comply with Conditions D.13.1(d), D.13.1(e), and D.13.3, the baghouse for particulate (PM and PM-10) control shall be in operation and control emissions at all times the contained detonation chamber is in operation and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(b) In the event that baghouse cartridge failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.13.7 Visible Emissions Notations

(a) Visible emission notations of the CDC baghouse stack exhaust shall be performed once per day during normal daylight operations when the CDC is in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.13.8 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the contained detonation chamber, at least once per day when the contained detonation chamber is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.01 and 4.0 inches of water or a range established during the latest stack test,

the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.13.9 Broken or Failed Baghouse Cartridge Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Baghouse cartridge failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.13.10 Record Keeping Requirements

(a) To document compliance with Condition D.13.1(a), the Permittee shall maintain records of the total amount of the Net Explosive Weight (NEW) of the materials fed to the contained detonation chamber (P01) each month.

(b) To document compliance with Condition D.13.7, the Permittee shall maintain a daily record of visible emission notations of the contained detonation chamber baghouse stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.13.8, the Permittee shall maintain records of the pressure drop across the baghouse controlling the contained detonation chamber. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.13.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.13.1(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.14 FACILITY OPERATION CONDITIONS

Emission Unit Description

(l) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, located ~~at~~ **in** Building 3345, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

(m) One (1) diesel-fueled, 4160-volt, 1000 kW generator which powers the MPTS, constructed in 2002, exhausting at stack S03.

(n) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, located in Building 3343, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.14.1 PSD Minor Limits [326 IAC 2-2]

(a) For the Mobile Plasma Treatment System (MPTS) and diesel generator:

(1) The total amount of diesel fuel used in the generator engine shall be limited to 89,604 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The combined carbon monoxide (CO) emissions from the mobile plasma treatment system (MPTS) and diesel generator shall not exceed 3.23 pounds per hour of operation.

(3) The combined nitrogen oxide (NOx) emissions from the mobile plasma treatment system (MPTS) and diesel generator shall not exceed 28.23 pounds per hour of operation.

(b) The net explosive weight (NEW) of the materials fed into the APE 1236 incinerator (P03) shall not exceed 347 tons per consecutive twelve (12) month period, with compliance determined at the end of each month.

(c) Baghouse C07 and Cyclone C05, for the APE 1236 incinerator (P03), shall be in operation at all times that the APE 1236 incinerator (P03) is in operation. The particulate matter (PM and PM-10) emissions from baghouse C07 shall not exceed 2.017 pounds per ton of net explosive weight (NEW) treated.

Compliance with these limits, together with the limits on the Contained Detonation Chamber in Condition D.13.1, will limit the potential to emit of NOx and CO to less than 40 tons and 100 tons, respectively; and the PM and PM10 emissions to less than 25 tons and 15 tons, respectively ,per twelve (12) consecutive month period; and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.14.2 RCRA Air Standards and Limitations

The Permittee shall comply with all self-implementing provisions of any future air regulations promulgated under the provisions of Section 30004(n) of RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA).

D.14.3 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the MPTS (P02) and the APE 1236 (P03) incinerator shall:

(a) Consist of primary and secondary chambers or the equivalent;

(b) Be equipped with a primary burner unless burning wood products;

(c) Comply with 326 IAC 5-1 and 326 IAC 2;

(d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and

(e) Not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard condition corrected to fifty percent (50%) excess air.

If any of the above requirements are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

D.14.4 Hazardous Waste Combustors NESHAP [40 CFR Part 63, Subpart EEE]

The Permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart EEE in Condition E.2.2 for the MPTS (P02) and the APE 1236 incinerator (P03).

D.14.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the hazardous waste combustors, MPTS (including the generator) and APE 1236 and their control devices.

Compliance Determination Requirements

D.14.6 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1-3(i)(8)][326 IAC 2-1.1-11] [40 CFR Part 63, Subpart EEE]

(a) The Permittee shall comply with the testing requirements of 40 CFR Part 63, Subpart EEE in Condition E.2.2 for the MPTS (P02) and the APE 1236 incinerator (P03).

(b) Pursuant to 326 IAC 3-6-3(b)(2), any tests shall be conducted under representative operating conditions.

(c) Pursuant to 326 IAC 3-6-3(b), during any performance tests, the MPTS (P02) and the APE 1236 incinerator (P03) must be operating at 95 percent of its maximum production capacity or more, or under other capacities or conditions specified and approved by IDEM, to be considered a valid test.

(d) Testing shall be conducted in accordance with Section C - Performance Testing.

D.14.7 Continuous Emissions Monitoring [326 IAC 3-5][326 IAC 2-7-6(1),(6)]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2, a CEMS for the MPTS (P02) and the APE 1236 incinerator (P03) shall be installed, calibrated, maintained, and continuously operated pursuant to 326 IAC 3-5. The CEMS shall meet the performance specifications of 326 IAC 3-5-2.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.14.8 Record Keeping Requirements

(a) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(b) To document compliance with Condition D.14.1(a)(1), the Permittee shall maintain records of the fuel usage of the MPTS generator.

(c) To document compliance with Condition D.14.1(b), the Permittee shall maintain records of the total amount of the Net Explosive Weight (NEW) of the materials fed to the APE 1236 incinerator (P03) each month.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.14.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.14.1(a)(1) and D.14.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.15 FACILITY OPERATION CONDITIONS

Emission Unit Description

(o) One (1) flare manufacturing process located in Buildings 2504 and 145, constructed in 2002, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(p) One (1) flare manufacturing process, located in Building 198, constructed in 2002, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.15.1 Volatile Organic Compounds and PSD Minor Limit [326 IAC 8-1-6][326 IAC 2-2]

(a) The total number of batches from the flare manufacturing in Buildings 2504 and 145 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month. VOC emissions shall not exceed 0.015 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

(b) The total number of batches from the flare manufacturing in Building 198 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month. VOC emissions shall not exceed 0.015 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

Compliance with the above limits combined with VOC emissions from P02 (Building 3345), the generator which powers P02 , and P01(Building 3339), shall limit the VOC emissions from this modification to less than 40 tons per year and limit VOC emissions from Buildings 2504 and 145; and 198 to less than 25 tons per year and render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable to the flare manufacturing processes in Buildings 2504 and 145; and 198.

D.15.2 Hazardous Air Pollutants [326 IAC 2-4.1][40 CFR Part 63]

(a) The total number of batches from the flare manufacturing process in Buildings 2504 and 145 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month.

(b) Total HAP emissions from the flare manufacturing process in Buildings 2504 and 145 shall not exceed 0.012 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

(c) The total number of batches from the flare manufacturing process in Building 198 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month.

(d) Total HAP emissions from the flare manufacturing process in Building 198 shall not exceed 0.012 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

Compliance with these limits shall limit emissions of any single HAP and any combination of HAPs from the flare manufacturing process to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable to the flare manufacturing processes

in Buildings 2504 and 145, and 198.

D.15.3 Miscellaneous Organic Chemical Manufacturing NESHAP [40 CFR Part 63, Subpart FFFF]

The Permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF in Condition E.4.2 for the flare manufacturing operations in Buildings 2504, 145 and 198.

D.15.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the flare manufacturing operations.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.15.5 Record Keeping Requirements

(a) To document compliance with Conditions D.15.1 and D.15.2 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be completed and sufficient to establish compliance with the VOC and HAP emission limits established in Conditions D.15.1 and D.15.2.

(1) The total number of batches processed each month for each flare manufacturing process.

(2) The weight of HAPs and VOCs emitted for each manufacturing process for each month.

(3) The weight of HAPs and VOCs emitted for each manufacturing process for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.15.6 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.15.1 and D.15.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.16 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities
(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5].

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.16.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.16.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION E.1 FACILITY OPERATION CONDITIONS

Emission Unit Description

Insignificant Activities:

(c) One (1) diesel-fired emergency generator, located at Building 10, with a maximum capacity of 268 horsepower, installed in 2007 with a manufacturer's date of after April 1, 2006, and a displacement of less than 10 liters per cylinder.

Under NSPS, Subpart IIII, the 268 horsepower diesel-fired emergency generator is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1 for the one (1) 268 horsepower diesel-fired emergency generator, except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart IIII, which are incorporated by reference as 326 IAC 12-1, for the one (1) 268 horsepower diesel-fired emergency generator as specified as follows:

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

...

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

...

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

...

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

...

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

...

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

...

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

...

60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

...

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

...

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

...

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

...

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

...

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

(1) The calendar year in which the engine was originally produced, or

(2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
130≤ KW< 225 (175≤ HP< 300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

E.1.3 One Time Deadlines Relating to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII]

Requirement	Rule Cite	Affected Facility	Deadline
Notification of the Date of Construction	40 CFR 60.4214(b)	Emergency Generator (268 horsepower diesel-fired generator)	Not required for emergency stationary internal combustion engines
Notification of the Date of Initial Startup	40 CFR 60.4214(b)	Emergency Generator (268 horsepower diesel-fired generator)	Not required for emergency stationary internal combustion engines
Initial Performance Test	40 CFR 60.4218	Emergency Generator (268 horsepower diesel-fired generator)	Not required because the engine displacement is less than 30 liters per cylinder

SECTION E.2 FACILITY OPERATION CONDITIONS

Emission Unit Description

(m) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, in Building 3345, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

Under NESHAP, Subpart EEE, the mobile plasma treatment system (MPTS) (P02) is considered a new affected facility.

(o) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, located in Building 3343, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

Under NESHAP, Subpart EEE, the APE 1236 rotary kiln incinerator (P03) is considered a new affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1200(c), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, in accordance with the schedule specified in Table 1 of 40 CFR Part 63, Subpart EEE.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 Hazardous Waste Combustors NESHAP [40 CFR Part 63, Subpart EEE]

The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart EEE for the mobile plasma treatment system (MPTS), identified as P02, and the APE 1236 rotary kiln incinerator, identified as P03, as specified as follows:

§ 63.1200 Who is subject to these regulations?

The provisions of this subpart apply to all hazardous waste combustors: hazardous waste incinerators, hazardous waste cement kilns, hazardous waste lightweight aggregate kilns, hazardous waste solid fuel boilers, hazardous waste liquid fuel boilers, and hazardous waste hydrochloric acid production furnaces. Hazardous waste combustors are also subject to applicable requirements under parts 260 through 270 of this chapter.

(a) *What if I am an area source?* (1) Both area sources and major sources are subject to this subpart.

...

(c) Table 1 of this section specifies the provisions of subpart A (General Provisions, §§63.1–63.15) that apply and those that do not apply to sources affected by this subpart.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42297, July 10, 2000; 67 FR 6986, Feb. 14, 2002; 70 FR 59540, Oct. 12, 2005]

§ 63.1201 Definitions and acronyms used in this subpart.

(a) The terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Air pollution control system means the equipment used to reduce the release of particulate matter and other pollutants to the atmosphere.

Automatic waste feed cutoff (AWFCO) system means a system comprised of cutoff valves, actuator, sensor, data manager, and other necessary components and electrical circuitry designed, operated and maintained to stop the flow of hazardous waste to the combustion unit automatically and immediately (except as provided by §63.1206(c)(3)(viii)) when any operating requirement is exceeded.

Btu means British Thermal Units.

By-pass duct means a device which diverts a minimum of 10 percent of a cement kiln's off gas, or a device which the Administrator determines on a case-by-case basis diverts a sample of kiln gas that contains levels of carbon monoxide or hydrocarbons representative of the levels in the kiln.

Combustion chamber means the area in which controlled flame combustion of hazardous waste occurs.

Continuous monitor means a device which continuously samples the regulated parameter specified in §63.1209 without interruption, evaluates the detector response at least once every 15 seconds, and computes and records the average value at least every 60 seconds, except during allowable periods of calibration and except as defined otherwise by the CEMS Performance Specifications in appendix B, part 60 of this chapter.

Dioxin/furan and dioxins and furans mean tetra-, penta-, hexa-, hepta-, and octa-chlorinated dibenzo dioxins and furans.

Existing source means any affected source that is not a new source.

Feedrate operating limits means limits on the feedrate of materials (*e.g.,* metals, chlorine) to the combustor that are established based on comprehensive performance testing. The limits are established and monitored by knowing the concentration of the limited material (*e.g.,* chlorine) in each feedstream and the flowrate of each feedstream.

Feedstream means any material fed into a hazardous waste combustor, including, but not limited to, any pumpable or nonpumpable solid, liquid, or gas.

Flowrate means the rate at which a feedstream is fed into a hazardous waste combustor.

Hazardous waste is defined in §261.3 of this chapter.

Hazardous waste burning cement kiln means a rotary kiln and any associated preheater or precalciner devices that produce clinker by heating limestone and other materials for subsequent production of cement for use in commerce, and that burns hazardous waste at any time.

Hazardous waste combustor means a hazardous waste incinerator, hazardous waste burning cement kiln, hazardous waste burning lightweight aggregate kiln, hazardous waste liquid fuel boiler, hazardous waste solid fuel boiler, or hazardous waste hydrochloric acid production furnace.

Hazardous waste hydrochloric acid production furnace and *Hazardous Waste HCl production furnace* mean a halogen acid furnace defined under §260.10 of this chapter that produces aqueous hydrochloric acid (HCl) product and that burns hazardous waste at any time.

Hazardous waste incinerator means a device defined as an incinerator in §260.10 of this chapter and that burns hazardous waste at any time. For purposes of this subpart, the hazardous waste incinerator includes all associated firing systems and air pollution control devices, as well as the combustion chamber equipment.

Hazardous waste lightweight aggregate kiln means a rotary kiln that produces clinker by heating materials such as slate, shale and clay for subsequent production of lightweight aggregate used in commerce, and that burns hazardous waste at any time.

Hazardous waste liquid fuel boiler means a boiler defined under §260.10 of this chapter that does not burn solid fuels and that burns hazardous waste at any time. Liquid fuel boiler includes boilers that only burn gaseous fuel.

Hazardous waste residence time means the time elapsed from cutoff of the flow of hazardous waste into the combustor (including, for example, the time required for liquids to flow from the cutoff valve into the combustor) until solid, liquid, and gaseous materials from the hazardous waste (excluding residues that may adhere to combustion chamber surfaces and excluding waste-derived recycled materials such as cement kiln dust and internally recycled metals) exit the combustion chamber. For combustors with multiple firing systems whereby the residence time may vary for the firing systems, the hazardous waste residence time for purposes of complying with this subpart means the longest residence time for any firing system in use at the time of the waste cutoff.

Hazardous waste solid fuel boiler means a boiler defined under §260.10 of this chapter that burns a solid fuel and that burns hazardous waste at any time.

Initial comprehensive performance test means the comprehensive performance test that is used as the basis for initially demonstrating compliance with the standards.

In-line kiln raw mill means a hazardous waste burning cement kiln design whereby kiln gas is ducted through the raw material mill for portions of time to facilitate drying and heating of the raw material.

Instantaneous monitoring for combustion system leak control means detecting and recording pressure, without use of an averaging period, at a frequency adequate to detect combustion system leak events from hazardous waste combustion.

Monovent means an exhaust configuration of a building or emission control device (*e.g.* positive pressure fabric filter) that extends the length of the structure and has a width very small in relation to its length (*i.e.,* length to width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

MTEC means maximum theoretical emissions concentration of metals or HCl/Cl, expressed as µg/dscm, and is calculated by dividing the feedrate by the gas flowrate.

New source means any affected source the construction or reconstruction of which is commenced after the dates specified under §§63.1206(a)(1)(i)(B), (a)(1)(ii)(B), and (a)(2)(ii).

One-minute average means the average of detector responses calculated at least every 60 seconds from responses obtained at least every 15 seconds.

Operating record means a documentation retained at the facility for ready inspection by authorized officials of all information required by the standards to document and maintain compliance with the applicable regulations, including data and information, reports, notifications, and communications with regulatory officials.

Operating requirements means operating terms or conditions, limits, or operating parameter limits developed under this subpart that ensure compliance with the emission standards.

Preheater tower combustion gas monitoring location means a location within the preheater tower of a dry process cement kiln downstream (in terms of gas flow) of all hazardous waste firing locations and where a representative sample of combustion gas to measure combustion efficiency can be monitored.

Raw material feed means the prepared and mixed materials, which include but are not limited to materials such as limestone, clay, shale, sand, iron ore, mill scale, cement kiln dust and flyash, that are fed to a cement or lightweight aggregate kiln. Raw material feed does not include the fuels used in the kiln to produce heat to form the clinker product.

Research, development, and demonstration source means a source engaged in laboratory, pilot plant, or prototype demonstration operations:

(1) Whose primary purpose is to conduct research, development, or short-term demonstration of an innovative and experimental hazardous waste treatment technology or process; and

(2) Where the operations are under the close supervision of technically-trained personnel.

Rolling average means the average of all one-minute averages over the averaging period.

Run means the net period of time during which an air emission sample is collected under a given set of operating conditions. Three or more runs constitutes a test. Unless otherwise specified, a run may be either intermittent or continuous.

Run average means the average of the one-minute average parameter values for a run.

System removal efficiency means [1 − Emission Rate (mass/time) / Feedrate (mass/time)] X 100.

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

You means the owner or operator of a hazardous waste combustor.

(b) The acronyms used in this subpart refer to the following:

AWFCO means automatic waste feed cutoff.

CAS means chemical abstract services registry.

CEMS means continuous emissions monitoring system.

CMS means continuous monitoring system.

DRE means destruction and removal efficiency.

MACT means maximum achievable control technology.

MTEC means maximum theoretical emissions concentration.

NIC means notification of intent to comply.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42297, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 35103, July 3, 2001; 67 FR 6986, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59540, Oct. 12, 2005]

...

§ 63.1203 What are the standards for hazardous waste incinerators that are effective until compliance with the standards under §63.1219?

...

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1) Dioxins and furans in excess of 0.20 ng TEQ/dscm, corrected to 7 percent oxygen;

(2) Mercury in excess of 45 µg/dscm corrected to 7 percent oxygen;

(3) Lead and cadmium in excess of 120 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 97 µg/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrochloric acid and chlorine gas in excess of 21 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen; and

(7) Particulate matter in excess of 34 mg/dscm corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard* —(1) *99.99% DRE.* Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1-(W_{out}/ W_{in})] \times 100\%$$

Where:

W_{in} = mass feedrate of one principal organic hazardous constituent (POHC) in a waste feedstream; and

W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE.* If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principle organic hazardous constituent (POHC) that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo- *p* -dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the Principal Organic Hazardous Constituents (POHCs) in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures.* The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

[67 FR 6809, Feb. 13, 2002, as amended at 70 FR 59541, Oct. 12, 2005]

...

§ 63.1206 When and how must you comply with the standards and operating requirements?

(a) *Compliance dates* —(1) *Compliance dates for incinerators, cement kilns, and lightweight aggregate kilns that burn hazardous waste* —(i) *Compliance date for standards under §§63.1203, 63.1204, and 63.1205*

...

(B) *New or reconstructed sources.* (*1*) If you commenced construction or reconstruction of your hazardous waste combustor after April 19, 1996, you must comply with the emission standards under §§63.1203, 63.1204, and 63.1205 and the other requirements of this subpart by the later of September 30, 1999 or the date the source starts operations, except as provided by paragraphs (a)(1)(i)(A)(*1*) through (*3*) and (a)(1)(i)(B)(*2*) of this section. The costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart, between April 19, 1996 and a source's compliance date, are not considered to be reconstruction costs.

(*2*) For a standard under §§63.1203, 63.1204, and 63.1205 that is more stringent than the standard proposed on April 19, 1996, you may achieve compliance no later than September 30, 2003 if you comply with the standard proposed on April 19, 1996 after September 30, 1999. This exception does not apply, however, to new or reconstructed area source hazardous waste combustors that become major sources after September 30, 1999. As provided by §63.6(b)(7), such sources must comply with the standards under §§63.1203, 63.1204, and 63.1205 at startup.

..

(b) *Compliance with standards* —(1) *Applicability.* The emission standards and operating requirements set forth in this subpart apply at all times except:

(i) During periods of startup, shutdown, and malfunction; and

(ii) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and you have documented in the operating record that you are complying with all otherwise applicable requirements and standards promulgated under authority of sections 112 (e.g., 40 CFR part 63, subparts LLL, DDDDD, and NNNNN) or 129 of the Clean Air Act in lieu of the emission standards under §§63.1203, 63.1204, 63.1205, 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221; the monitoring and compliance standards of this section and §§63.1207 through 63.1209, except the modes of operation requirements of §63.1209(q); and the notification, reporting, and recordkeeping requirements of §§63.1210 through 63.1212.

(2) *Methods for determining compliance.* The Administrator will determine compliance with the emission standards of this subpart as provided by §63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §§63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions.

(3) *Finding of compliance.* The Administrator will make a finding concerning compliance with the emission standards and other requirements of this subpart as provided by §63.6(f)(3).

(4) *Extension of compliance with emission standards.* The Administrator may grant an extension of compliance with the emission standards of this subpart as provided by §§63.6(i) and 63.1213.

(5) *Changes in design, operation, or maintenance* —(i) *Changes that may adversely affect compliance.* If you plan to change (as defined in paragraph (b)(5)(iii) of this section) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS:

(A) *Notification.* You must notify the Administrator at least 60 days prior to the change, unless you document circumstances that dictate that such prior notice is not reasonably feasible. The notification must include:

(*1*) A description of the changes and which emission standards may be affected; and

(*2*) A comprehensive performance test schedule and test plan under the requirements of §63.1207(f) that will document compliance with the affected emission standard(s);

(B) *Performance test.* You must conduct a comprehensive performance test under the requirements of §§63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d); and

(C) *Restriction on waste burning.* (*1*) Except as provided by paragraph (b)(5)(i)(C)(*2*) of this section, after the change and prior to submitting the notification of compliance, you must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at §63.1207(h)(2)(i) and (ii).

(*2*) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements.

(ii) *Changes that will not affect compliance.* If you determine that a change will not adversely affect compliance with the emission standards or operating requirements, you must document the change in the operating record upon making such change. You must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes.

(iii) *Definition of "change."* For purposes of paragraph (b)(5) of this section, "change" means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan.

(6) *Compliance with the carbon monoxide and hydrocarbon emission standards.* This paragraph applies to sources that elect to comply with the carbon monoxide and hydrocarbon emissions standards of this subpart by documenting continuous compliance with the carbon monoxide standard using a continuous emissions monitoring system and documenting compliance with the hydrocarbon standard during the destruction and removal efficiency (DRE) performance test or its equivalent.

(i) If a DRE test performed pursuant to §63.1207(c)(2) is acceptable as documentation of compliance with the DRE standard, you may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard.

(ii) If during this acceptable DRE test you did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, you must either:

(A) Perform, as part of the performance test, an "equivalent DRE test" to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which you operate the combustor as close as reasonably possible to the operating parameter limits that you established based on the initial DRE test. You must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or

(B) Perform a DRE test as part of the performance test.

(7) *Compliance with the DRE standard.* (i) Except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section:

(A) You must document compliance with the Destruction and Removal Efficiency (DRE) standard under this subpart only once provided that you do not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard.

(B) You may use any DRE test data that documents that your source achieves the required level of DRE provided:

(*1*) You have not modified the design or operation of your source in a manner that could effect the ability of your source to achieve the DRE standard since the DRE test was performed; and,

(*2*) The DRE test data meet quality assurance objectives determined on a site-specific basis.

(ii) *Sources that feed hazardous waste at locations other than the normal flame zone.* (A) Except as provided by paragraph (b)(7)(ii)(B) of this section, if you feed hazardous waste at a location in the combustion system other than the normal flame zone, then you must demonstrate compliance with the DRE standard during each comprehensive performance test;

...

(iii) For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to §63.1207(c)(2), you must perform DRE testing during the initial comprehensive performance test.

(8) *Applicability of particulate matter and opacity standards during particulate matter CEMS correlation tests.* (i) Any particulate matter and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (*i.e.,* any title 40 particulate or opacity standards) applicable to a hazardous waste combustor do not apply while you conduct particulate matter continuous emissions monitoring system (CEMS) correlation tests (*i.e.,* correlation with manual stack methods) under the conditions of paragraphs (b)(8)(iii) through (vii) of this section.

(ii) Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any particulate matter and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (*i.e.,* any title 40 particulate or opacity standards) do not apply while you conduct particulate matter CEMS correlation tests under the conditions of paragraphs (b)(8)(iii) through (vii) of this section.

(iii) For the provisions of this section to apply, you must:

(A) Develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§63.1207(e) and (f):

(*1*) Number of test conditions and number of runs for each test condition;

(*2*) Target particulate matter emission level for each test condition;

(*3*) How you plan to modify operations to attain the desired particulate matter emission levels; and

(*4*) Anticipated normal particulate matter emission levels; and

(B) Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted.

(iv) The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information.

(v) The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator.

(vi) The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after you modify operations to attain the desired particulate matter emissions concentrations, unless you document in the correlation test plan that a longer period of conditioning is appropriate.

(vii) You must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed.

...

(11) *Calculation of hazardous waste residence time.* You must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. You must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §§63.1207(j) and 63.1210(d).

(12) *Documenting compliance with the standards based on performance testing.* (i) You must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart.

(ii) You must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that you must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually.

...

(14) *Alternative to the particulate matter standard for incinerators.* (i). *General.* In lieu of complying with the particulate matter standards under §63.1203, you may elect to comply with the following alternative metal emission control requirements:

...

(iii) *Alternative metal emission control requirements for new incinerators.* (A) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 24 µgm/dscm, combined emissions, corrected to 7 percent oxygen; and,

(B) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 97 µgm/dscm, combined emissions, corrected to 7 percent oxygen.

(iv) *Operating limits.* Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to §63.1209(n), except that semivolatile metal feedrate limits apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

...

(c) *Operating requirements* —(1) *General.* (i) You must operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(d), except:

(A) During performance tests under approved test plans according to §63.1207(e), (f), and (g), and

(B) Under the conditions of paragraph (b)(1)(i) or (ii) of this section;

(ii) The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements in this section and §63.1209

(iii) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart;

(iv) Operating requirements in the Notification of Compliance are applicable requirements for purposes of parts 70 and 71 of this chapter;

(v) The operating requirements specified in the Notification of Compliance will be incorporated in the title V permit.

(2) *Startup, shutdown, and malfunction plan.* (i) You are subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3).

(ii) If you elect to comply with §§270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of this chapter to address RCRA concerns that you minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents):

(A) The startup, shutdown, and malfunction plan must include a description of potential causes of malfunctions, including releases from emergency safety vents, that may result in significant releases of hazardous air pollutants, and actions the source is taking to minimize the frequency and severity of those malfunctions.

(B) You must submit the startup, shutdown, and malfunction plan to the Administrator for review and approval.

(*1*) *Approval procedure.* The Administrator will notify you of approval or intention to deny approval of the startup, shutdown, and malfunction plan within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplemental information that you submit. Before disapproving the plan, the Administrator will notify you of the Administrator's intention to disapprove the plan together with:

(*i*) Notice of the information and findings on which intended disapproval is based; and

(*ii*) Notice of opportunity for you to present additional information to the Administrator before final action on disapproval of the plan. At the time the Administrator notifies you of intention to disapprove the plan, the Administrator will specify how much time you will have after being notified on the intended disapproval to submit additional information.

(*2*) *Responsibility of owners and operators.* You are responsible for ensuring that you submit any supplementary and additional information supporting your plan in a timely manner to enable the Administrator to consider whether to approve the plan. Neither your submittal of the plan, nor the Administrator's failure to approve or disapprove the plan, relieves you of the responsibility to comply with the provisions of this subpart.

(C) *Changes to the plan that may significantly increase emissions.* (*1*) You must request approval in writing from the Administrator within 5 days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants.

(*2*) To request approval of such changes to the startup, shutdown, and malfunction plan, you must follow the procedures provided by paragraph (c)(2)(ii)(B) of this section for initial approval of the plan.

(iii) You must identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.

(iv) You must record the plan in the operating record.

(v) *Operating under the startup, shutdown, and malfunction plan.* (A) *Compliance with AWFCO requirements during malfunctions.* (*1*) During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for paragraphs (c)(3)(v) and (c)(3)(vi) of this section. If you exceed a part 63, Subpart EEE, of this chapter emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section. If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible.

(*2*) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of this subpart EEE if you operate in accordance with §63.6(e)(1).

(*3*) *Excessive exceedances during malfunctions.* For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (*i.e.,* when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must:

(*i*) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and

(*ii*) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3).

(B) *Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.* (*1*) If you feed hazardous waste during startup or shutdown, you must include waste feed restrictions (*e.g.,* type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan.

(*2*) You must interlock the operating limits you establish under paragraph (c)(2)(v)(B)(*1*) of this section with the automatic waste feed cutoff system required under §63.1206(c)(3), except for paragraphs (c)(3)(v) and (c)(3)(vi) of this section.

(*3*) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed if you exceed the operating limits you establish under paragraph (c)(2)(v)(B)(*1*) of this section, except as provided by paragraph (c)(3)(viii) of this section.

(4) Although the automatic waste feed cutoff requirements of this paragraph (c)(2)(v)(B)(*4*) apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of this subpart EEE if you operate in accordance with §63.6(e)(1).

(3) *Automatic waste feed cutoff (AWFCO)* —(i) *General.* Upon the compliance date, you must operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section:

(A) When any of the following are exceeded: Operating parameter limits specified under §63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;

(B) When the span value of any CMS detector, except a CEMS, is met or exceeded;

(C) Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or

(D) When any component of the automatic waste feed cutoff system fails.

(ii) *Ducting of combustion gases.* During an AWFCO, you must continue to duct combustion gasses to the air pollution control system while hazardous waste remains in the combustion chamber (*i.e*., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated).

(iii) *Restarting waste feed.* You must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and you must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits.

(iv) *Failure of the AWFCO system.* If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under paragraph (c)(3)(i) of this section, you have failed to comply with the AWFCO requirements of paragraph (c)(3) of this section. If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible.

(v) *Corrective measures.* If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (*i.e.,* whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), you must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record.

(vi) *Excessive exceedance reporting.* (A) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (*i.e.,* when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken.

(B) On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period.

(vii) *Testing.* The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record AWFCO operability test procedures and results.

(viii) *Ramping down waste feed.* (A) You may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by paragraph (c)(3)(viii)(B) of this section. If you elect to ramp down the waste feed, you must document ramp down procedures in the operating and maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, you have failed to comply with the emission standards or operating requirements of this subpart.

(B) If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, you may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for your combustor.

(4) *ESV openings* —(i) *Failure to meet standards.* If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber (*i.e.,* when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the startup, shutdown, and malfunction plan such that combustion gases are not treated as during the most recent comprehensive performance test (*e.g.,* if the combustion gas by-passes any emission control device that was operating during the performance test), you must document in the operating record whether you remain in compliance with the emission standards of this subpart considering emissions during the ESV opening event.

(ii) *ESV operating plan.* (A) You must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record.

(B) The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible.

(iii) *Corrective measures.* After any ESV opening that results in a failure to meet the emission standards as defined in paragraph (c)(4)(i) of this section, you must investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record.

(iv) *Reporting requirements.* You must submit to the Administrator a written report within 5 days of an ESV opening that results in failure to meet the emission standards of this subpart (as determined in paragraph (c)(4)(i) of this section) documenting the result of the investigation and corrective measures taken.

(5) *Combustion system leaks.* (i) Combustion system leaks of hazardous air pollutants must be controlled by:

(A) Keeping the combustion zone sealed to prevent combustion system leaks; or

(B) Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or

(C) Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or

(D) Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and

(ii) You must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If you control combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, you must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system.

(6) *Operator training and certification.* (i) You must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in paragraphs (c)(6)(iii) through (c)(6)(vi) of this section.

(ii) You must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation.

(iii) Hazardous waste incinerator control room operators must:

(A) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or

(B) Be trained under the requirements of, and certified under, one of the following American Society of Mechanical Engineers (ASME) standards: QHO–1–1994, QHO–1a–1996, or QHO–1–2004 (Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators). If you elect to use the ASME program:

(*1*) Control room operators must, prior to the compliance date, achieve provisional certification, and must submit an application to ASME and be scheduled for the full certification exam. Within one year of the compliance date, control room operators must achieve full certification;

(*2*) New operators and operators of new sources must, before assuming their duties, achieve provisional certification, and must submit an application to ASME, and be scheduled for the full certification exam. Within one year of assuming their duties, these operators must achieve full certification; or

(C) Be trained and certified under a State program.

(iv) Control room operators of cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces must be trained and certified under:

(A) A site-specific, source-developed and implemented program that meets the requirements of paragraph (c)(6)(v) of this section; or

(B) A State program.

(v) Site-specific, source developed and implemented training programs for control room operators must include the following elements:

(A) Training on the following subjects:

(*1*) Environmental concerns, including types of emissions;

(*2*) Basic combustion principles, including products of combustion;

(*3*) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures;

(*4*) Combustion controls and continuous monitoring systems;

(*5*) Operation of air pollution control equipment and factors affecting performance;

(*6*) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices;

(*7*) Actions to correct malfunctions or conditions that may lead to malfunction;

(*8*) Residue characteristics and handling procedures; and

(*9*) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and

(B) An examination designed and administered by the instructor; and

(C) Written material covering the training course topics that may serve as reference material following completion of the course.

(vi) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph (c)(6)(v) of this section, control room operators must complete an annual review or refresher course covering, at a minimum, the following topics:

(A) Update of regulations;

(B) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling;

(C) Inspection and maintenance;

(D) Responses to malfunctions or conditions that may lead to malfunction; and

(E) Operating problems encountered by the operator.

(vii) You must record the operator training and certification program in the operating record.

(7) *Operation and maintenance plan* —(i) You must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

(ii) The plan must prescribe how you will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

(iii) This plan ensures compliance with the operation and maintenance requirements of §63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.

(iv) You must record the plan in the operating record.

(8) *Bag leak detection system requirements.* (i) If your combustor is equipped with a baghouse (fabric filter), you must continuously operate either:

(A) A bag leak detection system that meets the specifications and requirements of paragraph (c)(8)(ii) of this section and you must comply with the corrective measures and notification requirements of paragraphs (c)(8)(iii) and (iv) of this section; or

(B) A particulate matter detection system under paragraph (c)(9) of this section.

(ii) *Bag leak detection system specification and requirements.* (A) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under §63.1209(g)(1), that a higher detection limit would routinely detect particulate matter loadings during normal operations;

(B) The bag leak detection system shall provide output of relative or absolute particulate matter loadings;

(C) The bag leak detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level;

(D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system;

(E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time;

(F) Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under paragraph (c)(7) of this section. You must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition;

(G) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and

(H) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors.

(iii) *Bag leak detection system corrective measures requirements.* The operating and maintenance plan required by paragraph (c)(7) of this section must include a corrective measures plan that specifies the procedures you will follow in the case of a bag leak detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart.

(A) You must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and

(B) You must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include, but are not to be limited to, the following:

(*1*) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions;

(*2*) Sealing off defective bags or filter media;

(*3*) Replacing defective bags or filter media, or otherwise repairing the control device;

(*4*) Sealing off a defective baghouse compartment;

(*5*) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or

(*6*) Shutting down the combustor.

(iv) *Excessive exceedances notification.* If you operate the combustor when the detector response exceeds the alarm set-point more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the combustor or baghouse you are taking to minimize exceedances. To document compliance with this requirement:

(A) You must keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken;

(B) You must record the percent of the operating time during each 6-month period that the alarm sounds;

(C) In calculating the operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; and

(D) If corrective action is required, each alarm shall be counted as a minimum of 1 hour.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42298, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 24272, May 14, 2001; 66 FR 35103, July 3, 2001; 66 FR 63317, Dec. 7, 2001; 67 FR 6813, Feb. 13, 2002; 67 FR 6989, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59541, Oct. 12, 2005; 70 FR 75047, Dec. 19, 2005; 71 FR 20459, Apr. 20, 2006; 71 FR 62393, Oct. 25, 2006]

§ 63.1207 What are the performance testing requirements?

(a) *General.* The provisions of §63.7 apply, except as noted below.

(b) *Types of performance tests* —(1) *Comprehensive performance test.* You must conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by this subpart, establish limits for the operating parameters provided by §63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems.

(2) *Confirmatory performance test.* You must conduct confirmatory performance tests to:

(i) Demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and

(ii) Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under §63.1209(k).

(3) *One-Time Dioxin/Furan Test for Sources Not Subject to a Numerical Dioxin/Furan Standard.* For solid fuel boilers and hydrochloric acid production furnaces, for lightweight aggregate kilns that are not subject to a numerical dioxin/furan emission standard under §63.1221, and liquid fuel boilers that are not subject to a numerical dioxin/furan emission standard under §63.1217, you must conduct a one-time emission test for dioxin/furan under feed and operating conditions that are most likely to reflect daily maximum operating variability, similar to a dioxin/furan comprehensive performance test.

(c) *Initial comprehensive performance test* —(1) *Test date.* Except as provided by paragraphs (c)(2) and (c)(3) of this section, you must commence the initial comprehensive performance test not later than six months after the compliance date.

(2) *Data in lieu of the initial comprehensive performance test.* (i) You may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing:

(A) Was initiated after 54 months prior to the compliance date, except as provided by paragraphs (c)(2)(iii) or (c)(2)(iv) of this section;

(B) Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards;

(C) Was in conformance with the requirements of paragraph (g)(1) of this section; and

(D) Was sufficient to establish the applicable operating parameter limits under §63.1209.

(ii) You must submit data in lieu of the initial comprehensive performance test in lieu of (i.e., if the data are in lieu of all performance testing) or with the notification of performance test required under paragraph (e) of this section.

(iii) The data in lieu test age restriction provided in paragraph (c)(2)(i)(A) of this section does not apply for the duration of the interim standards (i.e., the standards published in the Federal Register on February 13, 2002, 67 FR 6792). See 40 CFR parts 63, 264, 265, 266, 270, and 271 revised as of July 1, 2002. Paragraph (c)(2)(i)(A) of this section does not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001 (66 FR 57715).

(iv) The data in lieu test age restriction provided in paragraph (c)(2)(i)(A) of this section does not apply to DRE data provided you do not feed hazardous waste at a location in the combustion system other than the normal flame zone.

(3) For incinerators, cement kilns, and lightweight aggregate kilns, you must commence the initial comprehensive performance test to demonstrate compliance with the standards under §§63.1219, 63.1220, and 63.1221 not later than 12 months after the compliance date.

(d) *Frequency of testing.* Except as otherwise specified in paragraph (d)(4) of this section, you must conduct testing periodically as prescribed in paragraphs (d)(1) through (d)(3) of this section. The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. You may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Administrator grants a time extension under paragraph (i) of this section, you must conduct testing as follows:

(1) *Comprehensive performance testing.* Except as otherwise specified in paragraph (d)(4) of this section, you must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test. If you submit data in lieu of the initial performance test, you must commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test.

(2) *Confirmatory performance testing.* Except as otherwise specified in paragraph (d)(4) of this section, you must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. If you submit data in lieu of the initial performance test, you must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the Administrator will not approve a test plan that schedules testing within 18 months of commencing the previous comprehensive performance test.

(3) *Duration of testing.* You must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline.

(4) *Applicable testing requirements under the interim standards.* (i) *Waiver of periodic comprehensive performance tests.* Except as provided in paragraph (c)(2) of this section, you must conduct only an initial comprehensive performance test under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002); all subsequent comprehensive performance testing requirements are waived under the interim standards. The provisions in the introductory text to paragraph (d) and in paragraph (d)(1) of this section do not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

(ii) *Waiver of confirmatory performance tests.* You are not required to conduct a confirmatory test under the interim standards (*i.e.,* the standards published in the Federal Register on February 13, 2002. The confirmatory testing requirements in the introductory text to paragraph (d) and in paragraph (d)(2) of this section are waived until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

(e) *Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan.* (1) The provisions of §63.7(b) and (c) and §63.8(e) apply, except:

(i) *Comprehensive performance test.* You must submit to the Administrator a notification of your intention to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one year before the performance test and performance evaluation are scheduled to begin.

(A) The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 9 months after receipt of the original plan.

(B) You must submit to the Administrator a notification of your intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin.

(ii) *Confirmatory performance test.* You must submit to the Administrator a notification of your intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin. The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 30 calendar days after receipt of the original test plans.

(2) You must make your site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. You must issue a public notice to all persons on your facility/public mailing list (developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that you issue your public notice. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum:

(i) The name and telephone number of the source's contact person;

(ii) The name and telephone number of the regulatory agency's contact person;

(iii) The location where the test plans and any necessary supporting documentation can be reviewed and copied;

(iv) The time period for which the test plans will be available for public review; and

(v) An expected time period for commencement and completion of the performance test and CMS performance evaluation test.

(3) *Petitions for time extension if Administrator fails to approve or deny test plans.* You may petition the Administrator under §63.7(h) to obtain a "waiver" of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The "waiver" would be implemented as an extension of time to conduct the performance test at a later date.

(i) *Qualifications for the waiver.* (A) You may not petition the Administrator for a waiver under this section if the Administrator has issued a notification of intent to deny your test plan(s) under §63.7(c)(3)(i)(B);

(B) You must submit a site-specific emissions testing plan and a continuous monitoring system performance evaluation test plan at least one year before a comprehensive performance test is scheduled to begin as required by paragraph (c)(1) of this section, or at least 60 days before a confirmatory performance test is scheduled to begin as required by paragraph (d) of this section. The test plans must include all required documentation, including the substantive content requirements of paragraph (f) of this section and §63.8(e); and

(C) You must make a good faith effort to accommodate the Administrator's comments on the test plans.

(ii) *Procedures for obtaining a waiver and duration of the waiver:* (A) You must submit to the Administrator a waiver petition or request to renew the petition under §63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test;

(B) The Administrator will approve or deny the petition within 30 days of receipt and notify you promptly of the decision;

(C) The Administrator will not approve an individual waiver petition for a duration exceeding 6 months;

(D) The Administrator will include a sunset provision in the waiver ending the waiver within 6 months;

(E) You may submit a revised petition to renew the waiver under §63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently approved waiver petition;

(F) The Administrator may approve a revised petition for a total waiver period up to 12 months.

(iii) *Content of the waiver.* (A) You must provide documentation to enable the Administrator to determine that the source is meeting the relevant standard(s) on a continuous basis as required by §63.7(h)(2). For extension requests for the initial comprehensive performance test, you must submit your Documentation of Compliance to assist the Administrator in making this determination.

(B) You must include in the petition information justifying your request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by §63.7(h)(3)(iii).

(iv) *Public notice.* At the same time that you submit your petition to the Administrator, you must notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of your petition to waive a performance test. The notification must include all of the following information at a minimum:

(A) The name and telephone number of the source's contact person;

(B) The name and telephone number of the regulatory agency's contact person;

(C) The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and

(D) The length of time requested for the waiver.

(f) *Content of performance test plan.* The provisions of §§63.7(c)(2)(i)–(iii) and (v) regarding the content of the test plan apply. In addition, you must include the following information in the test plan:

(1) *Content of comprehensive performance test plan.* (i) An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes:

(A) Heating value, levels of ash (for hazardous waste incinerators only), levels of semivolatile metals, low volatile metals, mercury, and total chlorine (organic and inorganic); and

(B) Viscosity or description of the physical form of the feedstream;

(ii) For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60:

(A) Except as provided by paragraph (f)(1)(ii)(D) of this section, an identification of such organic hazardous air pollutants that are present in each hazardous waste feedstream. You need not analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. You must identify any constituents you exclude from analysis and explain the basis for excluding them. You must conduct the feedstream analysis according to §63.1208(b)(8);

(B) An approximate quantification of such identified organic hazardous air pollutants in the hazardous waste feedstreams, within the precision produced by analytical procedures of §63.1208(b)(8); and

(C) A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending, and blending ratios.

(D) The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the analysis required under paragraph (f)(1)(ii)(A) of this section if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standards of this subpart continue to be representative of the most difficult to destroy organic compounds in your hazardous waste feedstreams;

(iii) A detailed engineering description of the hazardous waste combustor, including:

(A) Manufacturer's name and model number of the hazardous waste combustor;

(B) Type of hazardous waste combustor;

(C) Maximum design capacity in appropriate units;

(D) Description of the feed system for each feedstream;

(E) Capacity of each feed system;

(F) Description of automatic hazardous waste feed cutoff system(s);

(G) Description of the design, operation, and maintenance practices for any air pollution control system; and

(H) Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems;

(iv) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(v) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors;

(vi) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards;

(vii) A description of, and planned operating conditions for, any emission control equipment that will be used;

(viii) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction;

(ix) A determination of the hazardous waste residence time as required by §63.1206(b)(11);

(x) If you are requesting to extrapolate metal feedrate limits from comprehensive performance test levels under §§63.1209(l)(1)(v) or 63.1209(n)(2)(vii):

(A) A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards;

(B) Documentation of the historical range of normal (*i.e*., other than during compliance testing) metals feedrates for each feedstream;

(C) Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards;

(xi) If you do not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under §63.1209(c)(5), you must include documentation of the expected levels of regulated constituents in those feedstreams;

(xii) Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by paragraph (g)(1)(iii) of this section;

...

(xv) If you request to use Method 23 for dioxin/furan you must provide the information required under §63.1208(b)(1)(i)(B);

(xvi) If you are not required to conduct performance testing to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under paragraph (m) of this section, you must include with the comprehensive performance test plan documentation of compliance with the provisions of that section.

(xvii) If you propose to use a surrogate for measuring or monitoring gas flowrate, you must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by paragraph (m)(7) of this section, and §63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i).

(xviii) You must submit an application to request alternative monitoring under §63.1209(g)(1) not later than with the comprehensive performance test plan, as required by §63.1209(g)(1)(iii)(A).

(xix) You must document the temperature location measurement in the comprehensive performance test plan, as required by §§63.1209(j)(1)(i) and 63.1209(k)(2)(i).

(xx) If your source is equipped with activated carbon injection, you must document in the comprehensive performance test plan:

(A) The manufacturer specifications for minimum carrier fluid flowrate or pressure drop, as required by §63.1209(k)(6)(ii); and

(B) Key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, if you elect not to specify and use the brand and type of carbon used during the comprehensive performance test, as required by §63.1209(k)(6)(iii).

(xxi) If your source is equipped with a carbon bed system, and you elect not to specify and use the brand and type of carbon used during the comprehensive performance test, you must include in the comprehensive performance test plan key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, as required by §63.1209(k)(7)(ii).

(xxii) If you feed a dioxin/furan inhibitor into the combustion system, you must document in the comprehensive performance test plan key parameters that affect the effectiveness of the inhibitor, and the operating limits you establish for those parameters based on the inhibitor fed during the performance test, if you elect not to specify and use the brand and type of inhibitor used during the comprehensive performance test, as required by §63.1209(k)(9)(ii).

...

(xxiv) If your source is equipped with a particulate matter control device other than a wet scrubber, baghouse, or electrostatic precipitator, you must include in the comprehensive performance test plan:

(A) Documentation to support the operating parameter limits you establish for the control device, as required by §63.1209(m)(1)(iv)(A)(*4*); and

(B) Support for the use of manufacturer specifications if you recommend such specifications in lieu of basing operating limits on performance test operating levels, as required by §63.1209(m)(1)(iv)(D).

(xxv) If your source is equipped with a dry scrubber to control hydrogen chloride and chlorine gas, you must document in the comprehensive performance test plan key parameters that affect adsorption, and the limits you establish for those parameters based on the sorbent used during the performance test, if you elect not to specify and use the brand and type of sorbent used during the comprehensive performance test, as required by §63.1209(o)(4)(iii)(A); and

(xxvi) For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, a description of how you will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels.

(xxvii) Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan.

(2) *Content of confirmatory test plan.* (i) A description of your normal hydrocarbon or carbon monoxide operating levels, as specified in paragraph (g)(2)(i) of this section, and an explanation of how these normal levels were determined;

(ii) A description of your normal applicable operating parameter levels, as specified in paragraph (g)(2)(ii) of this section, and an explanation of how these normal levels were determined;

(iii) A description of your normal chlorine operating levels, as specified in paragraph (g)(2)(iii) of this section, and an explanation of how these normal levels were determined;

(iv) If you use carbon injection or a carbon bed, a description of your normal cleaning cycle of the particulate matter control device, as specified in paragraph (g)(2)(iv) of this section, and an explanation of how these normal levels were determined;

(v) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(vi) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors;

(vii) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the dioxin/furan emission standard;

(viii) A description of, and planned operating conditions for, any emission control equipment that will be used;

(ix) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; and

(x) Such other information as the Administrator reasonably finds necessary to determine whether to approve the confirmatory test plan.

(g) *Operating conditions during testing.* You must comply with the provisions of §63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of §63.7(e)(1) to conduct performance testing under representative operating conditions.

(1) *Comprehensive performance testing* —(i) *Operations during testing.* For the following parameters, you must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions):

(A) *Chlorine feedrate.* You must feed normal (or higher) levels of chlorine during the dioxin/furan performance test;

(B) *Ash feedrate.* For hazardous waste incinerators, you must conduct the following tests when feeding normal (or higher) levels of ash: The semivolatile metal and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used; and

(C) *Cleaning cycle of the particulate matter control device.* You must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle: The particulate matter, semivolatile metal, and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used.

(ii) *Modes of operation.* Given that you must establish limits for the applicable operating parameters specified in §63.1209 based on operations during the comprehensive performance test, you may conduct testing under two or more operating modes to provide operating flexibility.

(iii) *Steady-state conditions.* (A) Prior to obtaining performance test data, you must operate under performance test conditions until you reach steady-state operations with respect to emissions of pollutants you must measure during the performance test and operating parameters under §63.1209 for which you must establish limits. During system conditioning, you must ensure that each operating parameter for which you must establish a limit is held at the level planned for the performance test. You must include documentation in the performance test plan under paragraph (f) of this section justifying the duration of system conditioning.

...

(2) *Confirmatory performance testing.* You must conduct confirmatory performance testing for dioxin/furan under normal operating conditions for the following parameters:

(i) Carbon monoxide (or hydrocarbon) CEMS emissions levels must be within the range of the average value to the maximum value allowed, except as provided by paragraph (g)(2)(iv) of this section. The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste;

(ii) Each operating limit (specified in §63.1209) established to maintain compliance with the dioxin/furan emission standard must be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed, except as provided by paragraph (g)(2)(iv) of this section. The average value is defined as the sum of the rolling average values recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste;

(iii) You must feed chlorine at normal feedrates or greater; and

(iv) If the combustor is equipped with carbon injection or carbon bed, normal cleaning cycle of the particulate matter control device.

(v) The Administrator may approve an alternative range to that required by paragraphs (g)(2)(i) and (ii) of this section if you document in the confirmatory performance test plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Administrator may consider test conditions outside of the range specified in the test plan based on a finding that you could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Administrator will consider the proximity of the emission test results to the standard.

(h) *Operating conditions during subsequent testing.* (1) Current operating parameter limits established under §63.1209 are waived during subsequent comprehensive performance testing.

(2) Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator) under an approved test plan or if the source records the results of the pretesting. Pretesting means:

(i) Operations when stack emissions testing for dioxin/furan, mercury, semivolatile metals, low volatile metals, particulate matter, or hydrogen chloride/chlorine gas is being performed; and

(ii) Operations to reach steady-state operating conditions prior to stack emissions testing under paragraph (g)(1)(iii) of this section.

(i) *Time extension for subsequent performance tests.* After the initial comprehensive performance test, you may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences.

(1) You must submit in writing to the Administrator any request under this paragraph for a time extension for conducting a performance test.

(2) You must include in the request for an extension for conducting a performance test the following:

(i) A description of the reasons for requesting the time extension;

(ii) The date by which you will commence performance testing.

(3) The Administrator will notify you in writing of approval or intention to deny approval of your request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate your request. The 30-day approval or denial period will begin after you have been notified in writing that your application is complete. The Administrator will notify you in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that you submit.

(4) When notifying you that your application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for you to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(5) Before denying any request for an extension for performance testing, the Administrator will notify you in writing of the Administrator's intention to issue the denial, together with:

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for you to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Administrator before further action on the request.

(6) The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(j) *Notification of compliance* —(1) *Comprehensive performance test.* (i) Except as provided by paragraphs (j)(4) and (j)(5) of this section, within 90 days of completion of a comprehensive performance test, you must postmark a Notification of Compliance documenting compliance with the emission standards and continuous monitoring system requirements, and identifying operating parameter limits under §63.1209.

(ii) Upon postmark of the Notification of Compliance, you must comply with all operating requirements specified in the Notification of Compliance in lieu of the limits specified in the Documentation of Compliance required under §63.1211(c).

(2) *Confirmatory performance test.* Except as provided by paragraph (j)(4) of this section, within 90 days of completion of a confirmatory performance test, you must postmark a Notification of Compliance documenting compliance or noncompliance with the applicable dioxin/furan emission standard.

(3) See §§63.7(g), 63.9(h), and 63.1210(d) for additional requirements pertaining to the Notification of Compliance (*e.g.* , you must include results of performance tests in the Notification of Compliance).

(4) *Time extension.* You may submit a written request to the Administrator for a time extension documenting that, for reasons beyond your control, you may not be able to meet the 90-day deadline for submitting the Notification of Compliance after completion of testing. The Administrator will determine whether a time extension is warranted.

(5) *Early compliance.* If you conduct the initial comprehensive performance test prior to the compliance date, you must postmark the Notification of Compliance within 90 days of completion of the performance test or by the compliance date, whichever is later.

(k) *Failure to submit a timely notification of compliance.* (1) If you fail to postmark a Notification of Compliance by the specified date, you must cease hazardous waste burning immediately.

(2) Prior to submitting a revised Notification of Compliance as provided by paragraph (k)(3) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator).

(3) You must submit to the Administrator a Notification of Compliance subsequent to a new comprehensive performance test before resuming hazardous waste burning.

(l) *Failure of performance test* —(1) *Comprehensive performance test.* The provisions of this paragraph do not apply to the initial comprehensive performance test if you conduct the test prior to your compliance date.

(i) If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have exceeded any emission standard during a comprehensive performance test for a mode of operation, you must cease hazardous waste burning immediately under that mode of operation. You must make this determination within 90 days following completion of the performance test.

(ii) If you have failed to demonstrate compliance with the emission standards for any mode of operation:

(A) Prior to submitting a revised Notification of Compliance as provided by paragraph (l)(1)(ii)(C) of this section, you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section;

(B) You must conduct a comprehensive performance test under revised operating conditions following the requirements for performance testing of this section; and

(C) You must submit to the Administrator a Notification of Compliance subsequent to the new comprehensive performance test.

(2) *Confirmatory performance test.* If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have failed the dioxin/furan emission standard during a confirmatory performance test, you must cease burning hazardous waste immediately. You must make this determination within 90 days following completion of the performance test. To burn hazardous waste in the future:

(i) You must submit to the Administrator for review and approval a test plan to conduct a comprehensive performance test to identify revised limits on the applicable dioxin/furan operating parameters specified in §63.1209(k);

(ii) You must submit to the Administrator a Notification of Compliance with the dioxin/furan emission standard under the provisions of paragraphs (j) and (k) of this section and this paragraph (l). You must include in the Notification of Compliance the revised limits on the applicable dioxin/furan operating parameters specified in §63.1209(k); and

(iii) Until the Notification of Compliance is submitted, you must not burn hazardous waste except for purposes of pretesting or confirmatory performance testing, and for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section.

(3) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance.

(m) *Waiver of performance test.* (1) The waiver provision of this paragraph applies in addition to the provisions of §63.7(h).

(2) You are not required to conduct performance tests to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under the conditions specified in this paragraph (m)(2). You are deemed to be in compliance with an emission standard if the twelve-hour rolling average maximum theoretical emission concentration (MTEC) does not exceed the emission standard:

(i) Determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams;

(ii) Determine the stack gas flowrate; and

(iii) Calculate a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted;

(3) To document compliance with this provision, you must:

(i) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams according to §63.1209(c);

(ii) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate);

(iii) Continuously calculate and record in the operating record the MTEC under the procedures of paragraph (m)(2) of this section; and

(iv) Interlock the MTEC calculated in paragraph (m)(2)(iii) of this section to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the emission standard.

(4) In lieu of the requirement in paragraphs (m)(3)(iii) and (iv) of this section, you may:

(i) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in paragraph (m)(2)(iii) of this section is below the applicable emission standard; and

(ii) Interlock the minimum gas flowrate limit and maximum feedrate limit of paragraph (m)(4)(i) of this section to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limits of paragraph (m)(4)(i) of this section.

(5) When you determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride for purposes of this provision, except as provided by paragraph (m)(6) of this section, you must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream.

...

(7) You must state in the site-specific test plan that you submit for review and approval under paragraph (e) of this section that you intend to comply with the provisions of this paragraph. You must include in the test plan documentation that any surrogate that is proposed for gas flowrate adequately correlates with the gas flowrate.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42299, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 35106, July 3, 2001; 66 FR 63318, Dec. 6, 2001; 67 FR 6814, Feb. 13, 2002; 67 FR 6990, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59546, Oct. 12, 2005]

§ 63.1208 What are the test methods?

(a) [Reserved]

(b) *Test methods.* You must use the following test methods to determine compliance with the emissions standards of this subpart:

(1) *Dioxins and furans.* (i) To determine compliance with the emission standard for dioxins and furans, you must use:

(A) Method 0023A, Sampling Method for Polychlorinated Dibenzo- *p* -Dioxins and Polychlorinated Dibenzofurans emissions from Stationary Sources, EPA Publication SW–846 (incorporated by reference—see §63.14); or

(B) Method 23, provided in appendix A, part 60 of this chapter, after approval by the Administrator.

(*1*) You may request approval to use Method 23 in the performance test plan required under §63.1207(e)(i) and (ii).

(*2*) In determining whether to grant approval to use Method 23, the Administrator may consider factors including whether dioxin/furan were detected at levels substantially below the emission standard in previous testing, and whether previous Method 0023 analyses detected low levels of dioxin/furan in the front half of the sampling train.

(*3*) Sources that emit carbonaceous particulate matter, such as coal-fired boilers, and sources equipped with activated carbon injection, will be deemed not suitable for use of Method 23 unless you document that there would not be a significant improvement in quality assurance with Method 0023A.

(ii) You must sample for a minimum of three hours, and you must collect a minimum sample volume of 2.5 dscm;

(iii) You may assume that nondetects are present at zero concentration.

(2) *Mercury.* You must use Method 29, provided in appendix A, part 60 of this chapter, to demonstrate compliance with emission standard for mercury.

(3) *Cadmium and lead.* You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for cadmium and lead (combined).

(4) *Arsenic, beryllium, and chromium.* You must use Method 29, provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for arsenic, beryllium, and chromium (combined).

(5) *Hydrogen chloride and chlorine gas* —(i) *Compliance with MACT standards* . To determine compliance with the emission standard for hydrogen chloride and chlorine gas (combined), you must use:

(A) Method 26/26A as provided in appendix A, part 60 of this chapter; or

(B) Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or

(C) ASTM D 6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method to measure emissions of hydrogen chloride, and Method 26/26A to measure emissions of chlorine gas, provided that you follow the provisions in paragraphs (b)(5)(C)(*1*) through (*6*) of this section. ASTM D 6735–01 is available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(*1*) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735–01.

(*2*) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100)\,\text{Absolute Value}\left[\frac{C1_a - C2_a}{C1_a + C2_a}\right] \qquad \text{(Eq. 1)}$$

Where:

RSD_a = The test run relative standard deviation of sample pair a, percent.

$C1_a$ and $C2_a$ = The HCl concentrations, milligram/dry standard cubic meter (mg/dscm), from the paired samples.

(*3*) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^{p} RSD_a}{p} \qquad \text{(Eq. 2)}$$

Where:

RSD_{TA} = The test average relative standard deviation, percent.

RSD_a = The test run relative standard deviation for sample pair a.

p = The number of test runs, ≥3.

(*4*) If RSDTA is greater than 20 percent, the data are invalid and the test must be repeated.

(*5*) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735–01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735–01.

(*6*) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.

(ii) *Compliance with risk-based limits under §63.1215.* To demonstrate compliance with emission limits established under §63.1215, you must use Method 26/26A as provided in appendix A, part 60 of this chapter, Method 320 as provided in appendix A, part 63 of this chapter, Method 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method (following the provisions of paragraphs (b)(5)(C)(*1*) through (*6*) of this section), except:

(A) For cement kilns and sources equipped with a dry acid gas scrubber, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01 to measure hydrogen chloride, and the back-half, caustic impingers of Method 26/26A as provided in appendix A, part 60 of this chapter to measure chlorine gas; and

(B) For incinerators, boilers, and lightweight aggregate kilns, you must use Methods 320 or 321 as provided in appendix A, part 63 of this chapter, or ASTM D 6735–01 to measure hydrogen chloride, and Method 26/26A as provided in appendix A, part 60 of this chapter to measure total chlorine, and calculate chlorine gas by difference if:

(*1*) The bromine/chlorine ratio in feedstreams is greater than 5 percent; or

(*2*) The sulfur/chlorine ratio in feedstreams is greater than 50 percent.

(6) *Particulate matter.* You must use Methods 5 or 5I, provided in appendix A, part 60 of this chapter, to demonstrate compliance with the emission standard for particulate matter.

(7) *Other Test Methods.* You may use applicable test methods in EPA Publication SW-846, as incorporated by reference in paragraph (a) of this section, as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in paragraphs (b)(2)–(b)(6) of this section.

(8) *Feedstream analytical methods.* You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream.

(9) *Opacity.* If you determine compliance with the opacity standard under the monitoring requirements of §§63.1209(a)(1)(iv) and (a)(1)(v), you must use Method 9, provided in appendix A, part 60 of this chapter.

[64 FR 53038, Sept. 30, 1999, as amended at 69 FR 18803, Apr. 9, 2004; 70 FR 59547, Oct. 12, 2005]

§ 63.1209 What are the monitoring requirements?

(a) *Continuous emissions monitoring systems (CEMS) and continuous opacity monitoring systems (COMS).* (1)(i) You must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standard under this subpart. You must also use an oxygen CEMS to continuously correct the carbon monoxide or hydrocarbon level to 7 percent oxygen.

...

(2) *Performance specifications.* You must install, calibrate, maintain, and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 1 (opacity), 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in appendix B, part 60 of this chapter.

(3) *Carbon monoxide readings exceeding the span.* (i) Except as provided by paragraph (a)(3)(ii) of this section, if a carbon monoxide CEMS detects a response that results in a one-minute average at or above the 3,000 ppmv span level required by Performance Specification 4B in appendix B, part 60 of this chapter, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level.

(ii) Carbon monoxide CEMS that use a span value of 10,000 ppmv when one-minute carbon monoxide levels are equal to or exceed 3,000 ppmv are not subject to paragraph (a)(3)(i) of this section. Carbon monoxide CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment specifications when operating in the range of 3,000 ppmv to 10,000 ppmv that are provided by Performance Specification 4B for other carbon monoxide CEMS, except:

(A) Calibration drift must be less than 300 ppmv; and

(B) Calibration error must be less than 500 ppmv.

(4) *Hydrocarbon readings exceeding the span.* (i) Except as provided by paragraph (a)(4)(ii) of this section, if a hydrocarbon CEMS detects a response that results in a one-minute average at or above the 100 ppmv span level required by Performance Specification 8A in appendix B, part 60 of this chapter, the one-minute average must be recorded as 500 ppmv. The one-minute 500 ppmv value must be used for calculating the hourly rolling average HC level.

(ii) Hydrocarbon CEMS that use a span value of 500 ppmv when one-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to paragraph (a)(4)(i) of this section. Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by Performance Specification 8A for other hydrocarbon CEMS, except:

(A) The zero and high-level calibration gas must have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively;

(B) The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv;

(C) The CEMS calibration must not differ by more than ±15 ppmv after each 24-hour period of the seven day test at both zero and high levels;

(D) The calibration error must be no greater than 25 ppmv; and

(E) The zero level, mid-level, and high level calibration gas used to determine calibration error must have a hydrocarbon level of 0–200 ppmv, 150–200 ppmv, and 350–400 ppmv, respectively.

(5) *Petitions to use CEMS for other standards.* You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under this section.

(6) *Calculation of rolling averages* —(i) *Calculation of rolling averages initially.* The carbon monoxide or hydrocarbon CEMS must begin recording one-minute average values by 12:01 a.m. and hourly rolling average values by 1:01 a.m., when 60 one-minute values will be available for calculating the initial hourly rolling average for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute and hourly rolling average values within 60 seconds and 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), respectively, from the time at which compliance begins.

(ii) *Calculation of rolling averages upon intermittent operations.* You must ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average.

(iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* (A) Except as provided by paragraph (a)(6)(iii)(B) of this section, you must continue monitoring carbon monoxide and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if the emission levels exceed the standard.

(B) You are not subject to the CEMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste).

(7) *Operating parameter limits for hydrocarbons.* If you elect to comply with the carbon monoxide and hydrocarbon emission standard by continuously monitoring carbon monoxide with a CEMS, you must demonstrate that hydrocarbon emissions during the comprehensive performance test do not exceed the hydrocarbon emissions standard. In addition, the limits you establish on the destruction and removal efficiency (DRE) operating parameters required under paragraph (j) of this section also ensure that you maintain compliance with the hydrocarbon emission standard. If you do not conduct the hydrocarbon demonstration and DRE tests concurrently, you must establish separate operating parameter limits under paragraph (j) of this section based on each test and the more restrictive of the operating parameter limits applies.

(b) *Other continuous monitoring systems (CMS).* (1) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section.

(2) Except as specified in paragraphs (b)(2)(i) and (ii) of this section, you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system:

(i) *Calibration of thermocouples and pyrometers.* The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And,

(ii) *Accuracy and calibration of weight measurement devices for activated carbon injection systems.* If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days.

(3) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds.

(4) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3).

(5) *Calculation of rolling averages* —(i) *Calculation of rolling averages initially.* Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins.

(ii) *Calculation of rolling averages upon intermittent operations.* You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages.

(iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* (A) Except as provided by paragraph (b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit.

(B) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste).

(c) *Analysis of feedstreams* —(1) *General.* Prior to feeding the material, you must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits provided by this section.

(2) *Feedstream analysis plan.* You must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum:

(i) The parameters for which you will analyze each feedstream to ensure compliance with the operating parameter limits of this section;

(ii) Whether you will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information;

(iii) How you will use the analysis to document compliance with applicable feedrate limits (*e.g.,* if you blend hazardous wastes and obtain analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan must describe how you will determine the pertinent parameters of the blended waste);

(iv) The test methods which you will use to obtain the analyses;

(v) The sampling method which you will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in appendix IX, part 266 of this chapter, or an equivalent method; and

(vi) The frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.

(3) *Review and approval of analysis plan.* You must submit the feedstream analysis plan to the Administrator for review and approval, if requested.

(4) *Compliance with feedrate limits.* To comply with the applicable feedrate limits of this section, you must monitor and record feedrates as follows:

(i) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

(ii) Determine and record the mass or volume flowrate of each feedstream by a CMS. If you determine flowrate of a feedstream by volume, you must determine and record the density of the feedstream by sampling and analysis (unless you report the constituent concentration in units of weight per unit volume (e.g., mg/l)); and

(iii) Calculate and record the mass feedrate of the parameter per unit time.

(5) *Waiver of monitoring of constituents in certain feedstreams.* You are not required to monitor levels of metals or chlorine in the following feedstreams to document compliance with the feedrate limits under this section provided that you document in the comprehensive performance test plan the expected levels of the constituent in the feedstream and account for those assumed feedrate levels in documenting compliance with feedrate limits: natural gas, process air, and feedstreams from vapor recovery systems.

(d) *Performance evaluations.* (1) The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that you must conduct performance evaluations of components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207.

(2) You must comply with the quality assurance procedures for CEMS prescribed in the appendix to this subpart.

(e) *Conduct of monitoring.* The provisions of §63.8(b) apply.

(f) *Operation and maintenance of continuous monitoring systems.* The provisions of §63.8(c) apply except:

(1) *Section 63.8(c)(3).* The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of section 63.8(c)(3);

(2) *Section 63.8(c)(4)(ii).* The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of section 63.8(c)(4)(ii); and

(3) Sections 63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to owners and operators of hazardous waste burning cement kilns.

(g) *Alternative monitoring requirements other than continuous emissions monitoring systems (CEMS) —* (1) *Requests to use alternatives to operating parameter monitoring requirements.* (i) You may submit an application to the Administrator under this paragraph for approval of alternative operating parameter monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, you must use paragraph (a)(5) of this section and §63.8(f). Alternative requests to operating parameter monitoring requirements that include unproven monitoring methods may not be made under this paragraph and must be made under §63.8(f).

(ii) You may submit an application to waive an operating parameter limit specified in this section based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of this subpart.

(iii) You must comply with the following procedures for applications submitted under paragraphs (g)(1)(i) and (ii) of this section:

(A) *Timing of the application.* You must submit the application to the Administrator not later than with the comprehensive performance test plan.

(B) *Content of the application.* You must include in the application:

(*1*) Data or information justifying your request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach;

(*2*) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (*e.g.,* type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and

(*3*) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable.

(C) *Approval of request to use an alternative monitoring requirement or waive an operating parameter limit.* The Administrator will notify you of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that you submit. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify you of the Administrator's intention to disapprove the request together with:

(*1*) Notice of the information and findings on which the intended disapproval is based; and

(*2*) Notice of opportunity for you to present additional information to the Administrator before final action on the request. At the time the Administrator notifies you of intention to disapprove the request, the Administrator will specify how much time you will have after being notified of the intended disapproval to submit the additional information.

(D) *Responsibility of owners and operators.* You are responsible for ensuring that you submit any supplementary and additional information supporting your application in a timely manner to enable the Administrator to consider your application during review of the comprehensive performance test plan. Neither your submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves you of the responsibility to comply with the provisions of this subpart.

(iv) *Dual Standards that incorporate the Interim Standards for HAP metals.* (A) *Semivolatile and Low Volatile Metals.* You may petition the Administrator to waive a feedrate operating parameter limit under paragraph (n)(2) of this section for either the emission standards expressed in a thermal emissions format or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis.

(B) *Mercury.* You may petition the Administrator to waive a feedrate operating parameter limit under paragraph (l)(1) of this section for either the feed concentration standard under §§63.1220(a)(2)(i) and (b)(2)(i) or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis.

(2) *Administrator's discretion to specify additional or alternative requirements.* The Administrator may determine on a case-by-case basis at any time (e.g., during review of the comprehensive performance test plan, during compliance certification review) that you may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of operating parameter limits on the particulate matter control device) or that alternative approaches to establish limits on operating parameters may be necessary to document compliance with the emission standards of this subpart.

(h) *Reduction of monitoring data.* The provisions of §63.8(g) apply.

(i) *When an operating parameter is applicable to multiple standards.* Paragraphs (j) through (p) of this section require you to establish limits on operating parameters based on comprehensive performance testing to ensure you maintain compliance with the emission standards of this subpart. For several parameters, you must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standard of paragraph (j) of this section and the dioxin/furan standard of paragraph (k) of this section. If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies.

(j) *DRE.* To remain in compliance with the destruction and removal efficiency (DRE) standard, you must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (*i.e.,* the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated):

(1) *Minimum combustion chamber temperature.* (i) You must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under §63.1207(e);

(ii) You must establish a minimum hourly rolling average limit as the average of the test run averages;

(2) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) *Maximum hazardous waste feedrate.* (i) You must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed.

(ii) You must establish the limits as the average of the maximum hourly rolling averages for each run.

(iii) You must comply with the feedrate limit(s) on a hourly rolling average basis;

(4) *Operation of waste firing system.* You must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained.

(k) *Dioxins and furans.* You must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Gas temperature at the inlet to a dry particulate matter control device.* (i) For sources other than a lightweight aggregate kiln, if the combustor is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where particulate matter is suspended in contact with combustion gas, you must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. You must establish the hourly rolling average limit as the average of the test run averages.

...

(2) *Minimum combustion chamber temperature.* (i) For sources other than cement kilns, you must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under §§63.1207(e) and (f);

(ii) You must establish a minimum hourly rolling average limit as the average of the test run averages.

(3) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(4) *Maximum hazardous waste feedrate.* (i) You must establish limits on the maximum pumpable and total (pumpable and nonpumpable) hazardous waste feedrate for each location where waste is fed.

(ii) You must establish the limits as the average of the maximum hourly rolling averages for each run.

(iii) You must comply with the feedrate limit(s) on a hourly rolling average basis;

(5) *Particulate matter operating limit.* If your combustor is equipped with an activated carbon injection system, you must establish operating parameter limits on the particulate matter control device as specified by paragraph (m)(1) of this section;

(6) *Activated carbon injection parameter limits.* If your combustor is equipped with an activated carbon injection system:

(i) *Carbon feedrate.* You must establish a limit on minimum carbon injection rate on an hourly rolling average calculated as the average of the test run averages. If your carbon injection system injects carbon at more than one location, you must establish a carbon feedrate limit for each location.

(ii) *Carrier fluid.* You must establish a limit on minimum carrier fluid (gas or liquid) flowrate or pressure drop as an hourly rolling average based on the manufacturer's specifications. You must document the specifications in the test plan you submit under §§63.1207(e) and (f);

(iii) *Carbon specification.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of carbon used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test.

(B) You may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test and conforms to the key sorbent parameters you identify under paragraph (k)(6)(iii)(A) of this section. You must include in the operating record documentation that the substitute carbon will provide the same level of control as the original carbon.

(7) *Carbon bed parameter limits.* If your combustor is equipped with a carbon bed system:

(i) *Monitoring bed life.* You must:

(A) Monitor performance of the carbon bed consistent with manufacturer's specifications and recommendations to ensure the carbon bed (or bed segment for sources with multiple segments) has not reached the end of its useful life to minimize dioxin/furan and mercury emissions at least to the levels required by the emission standards;

(B) Document the monitoring procedures in the operation and maintenance plan;

(C) Record results of the performance monitoring in the operating record; and

(D) Replace the bed or bed segment before it has reached the end of its useful life to minimize dioxin/furan and mercury emissions at least to the levels required by the emission standards.

(ii) *Carbon specification.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of carbon used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test.

(B) You may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test. You must include in the operating record documentation that the substitute carbon will provide an equivalent or improved level of control as the original carbon.

(iii) *Maximum temperature.* You must measure the temperature of the carbon bed at either the bed inlet or exit and you must establish a maximum temperature limit on an hourly rolling average as the average of the test run averages.

(8) *Catalytic oxidizer parameter limits.* If your combustor is equipped with a catalytic oxidizer, you must establish limits on the following parameters:

(i) *Minimum flue gas temperature at the entrance of the catalyst.* You must establish a limit on minimum flue gas temperature at the entrance of the catalyst on an hourly rolling average as the average of the test run averages.

(ii) *Maximum time in-use.* You must replace a catalytic oxidizer with a new catalytic oxidizer when it has reached the maximum service time specified by the manufacturer.

(iii) *Catalyst replacement specifications.* When you replace a catalyst with a new one, the new catalyst must be equivalent to or better than the one used during the previous comprehensive test, as measured by:

(A) Catalytic metal loading for each metal;

(B) Space time, expressed in the units s^{-1}, the maximum rated volumetric flow of combustion gas through the catalyst divided by the volume of the catalyst; and

(C) Substrate construction, including materials of construction, washcoat type, and pore density.

(iv) *Maximum flue gas temperature.* You must establish a maximum flue gas temperature limit at the entrance of the catalyst as an hourly rolling average, based on manufacturer's specifications.

(9) *Inhibitor feedrate parameter limits.* If you feed a dioxin/furan inhibitor into the combustion system, you must establish limits for the following parameters:

(i) *Minimum inhibitor feedrate.* You must establish a limit on minimum inhibitor feedrate on an hourly rolling average as the average of the test run averages.

(ii) *Inhibitor specifications.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of inhibitor used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect the effectiveness of the inhibitor and establish limits on those parameters based on the inhibitor used in the performance test.

(B) You may substitute at any time a different brand or type of inhibitor provided that the replacement has equivalent or improved properties compared to the inhibitor used in the performance test and conforms to the key parameters you identify under paragraph (k)(9)(ii)(A) of this section. You must include in the operating record documentation that the substitute inhibitor will provide the same level of control as the original inhibitor.

(l) *Mercury.* You must comply with the mercury emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Feedrate of mercury.* (i) For incinerators and solid fuel boilers, when complying with the mercury emission standards under §§63.1203, 63.1216 and 63.1219, you must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run averages.

(ii) For liquid fuel boilers, when complying with the mercury emission standards of §63.1217, you must establish a rolling average limit for the mercury feedrate as follows on an averaging period not to exceed an annual rolling average:

(A) You must calculate a mercury system removal efficiency for each test run and calculate the average system removal efficiency of the test run averages. If emissions exceed the mercury emission standard during the comprehensive performance test, it is not a violation because the averaging period for the mercury emission standard is (not-to-exceed) one year and compliance is based on compliance with the mercury feedrate limit with an averaging period not-to-exceed one year.

(B) If you burn hazardous waste with a heating value of 10,000 Btu/lb or greater, you must calculate the mercury feedrate limit as follows:

(*1*) The mercury feedrate limit is the emission standard divided by [1 − system removal efficiency].

(*2*) The mercury feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of mercury in hazardous waste feedstreams per million Btu of hazardous waste fired.

(*3*) You must comply with the hazardous waste mercury thermal concentration limit by determining the feedrate of mercury in all hazardous waste feedstreams (lb/hr) at least once a minute and the hazardous waste thermal feedrate (MM Btu/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as [hazardous waste mercury feedrate (lb/hr) / hazardous waste thermal feedrate (MM Btu/hr)].

(*4*) You must calculate a rolling average hazardous waste mercury thermal concentration that is updated each hour.

(*5*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(C) If you burn hazardous waste with a heating value of less than 10,000 Btu/lb, you must calculate the mercury feedrate limit as follows:

(*1*) You must calculate the mercury feedrate limit as the mercury emission standard divided by [1 − System Removal Efficiency].

(*2*) The feedrate limit is expressed as a mass concentration per unit volume of stack gas (µgm/dscm) and is converted to a mass feedrate (lb/hr) by multiplying it by the average stack gas flowrate of the test run averages.

(*3*) You must comply with the feedrate limit by determining the mercury feedrate (lb/hr) at least once a minute to calculate a 60-minute average feedrate.

(*4*) You must update the rolling average feedrate each hour with this 60-minute feedrate measurement.

(*5*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

...

(v) *Extrapolation of feedrate levels.* In lieu of establishing mercury feedrate limits as specified in paragraphs (l)(1)(i) through (iv) of this section, you may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207 (e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether:

(A) Performance test metal feedrates are appropriate (*i.e.*, whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and

(B) Whether the extrapolated feedrates you request are warranted considering historical metal feedrate data.

...

(3) *Activated carbon injection.* If your combustor is equipped with an activated carbon injection system, you must establish operating parameter limits prescribed by paragraphs (k)(5) and (k)(6) of this section.

(4) *Activated carbon bed.* If your combustor is equipped with an activated carbon bed system, you must comply with the requirements of (k)(7) of this section to assure compliance with the mercury emission standard.

(m) *Particulate matter.* You must comply with the particulate matter emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

...

(iv) *Other particulate matter control devices.* For each particulate matter control device that is not a fabric filter or high energy wet scrubber, or is not an electrostatic precipitator or ionizing wet scrubber for which you elect to monitor particulate matter loadings under §63.1206(c)(9) of this chapter for process control, you must ensure that the control device is properly operated and maintained as required by §63.1206(c)(7) and by monitoring the operation of the control device as follows:

(A) During each comprehensive performance test conducted to demonstrate compliance with the particulate matter emissions standard, you must establish a range of operating values for the control device that is a representative and reliable indicator that the control device is operating within the same range of conditions as during the performance test. You must establish this range of operating values as follows:

(*1*) You must select a set of operating parameters appropriate for the control device design that you determine to be a representative and reliable indicator of the control device performance.

(*2*) You must measure and record values for each of the selected operating parameters during each test run of the performance test. A value for each selected parameter must be recorded using a continuous monitor.

(*3*) For each selected operating parameter measured in accordance with the requirements of paragraph (m)(1)(iv)(A)(*1*) of this section, you must establish a minimum operating parameter limit or a maximum operating parameter limit, as appropriate for the parameter, to define the operating limits within which the control device can operate and still continuously achieve the same operating conditions as during the performance test.

(*4*) You must prepare written documentation to support the operating parameter limits established for the control device and you must include this documentation in the performance test plan that you submit for review and approval. This documentation must include a description for each selected parameter and the operating range and monitoring frequency required to ensure the control device is being properly operated and maintained.

(B) You must install, calibrate, operate, and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of paragraph (m)(1)(iv)(A)(*1*) of this section. You must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor.

(C) You must regularly inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of paragraph (m)(1)(iv)(A)(3) of this section.

(D) Operating parameters selected in accordance with paragraph (m)(1)(iv) of this section may be based on manufacturer specifications provided you support the use of manufacturer specifications in the performance test plan that you submit for review and approval.

(2) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

(3) *Maximum ash feedrate.* Owners and operators of hazardous waste incinerators, solid fuel boilers, and liquid fuel boilers must establish a maximum ash feedrate limit as a 12-hour rolling average based on the average of the test run averages. This requirement is waived, however, if you comply with the particulate matter detection system requirements under §63.1206(c)(9).

(n) *Semivolatile metals and low volatility metals.* You must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Maximum inlet temperature to dry particulate matter air pollution control device.* You must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (*e.g.,* electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages.

(2) *Maximum feedrate of semivolatile and low volatile metals.* (i) *General.* You must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by paragraph (n)(2)(vii) of this section.

(ii) For incinerators, cement kilns, and lightweight aggregate kilns, when complying with the emission standards under §§63.1203, 63.1204, 63.1205, and 63.1219, and for solid fuel boilers when complying with the emission standards under §63.1216, you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages.

...

(5) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or

another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

...

(o) *Hydrogen chloride and chlorine gas.* You must comply with the hydrogen chloride and chlorine gas emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications.

(1) *Feedrate of total chlorine and chloride.* (i) *Incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, and hydrochloric acid production furnaces.* You must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages.

...

(2) *Maximum flue gas flowrate or production rate.* (i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run.

(ii) You must comply with this limit on a hourly rolling average basis;

...

(4) *Dry scrubber.* If your combustor is equipped with a dry scrubber, you must establish the following operating parameter limits:

(i) *Minimum sorbent feedrate.* You must establish a limit on minimum sorbent feedrate on an hourly rolling average as the average of the test run averages.

(ii) *Minimum carrier fluid flowrate or nozzle pressure drop.* You must establish a limit on minimum carrier fluid (gas or liquid) flowrate or nozzle pressure drop based on manufacturer's specifications.

(iii) *Sorbent specifications.* (A) You must specify and use the brand (*i.e.,* manufacturer) and type of sorbent used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless you document in the site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the sorbent used in the performance test.

(B) You may substitute at any time a different brand or type of sorbent provided that the replacement has equivalent or improved properties compared to the sorbent used in the performance test and conforms to the key sorbent parameters you identify under paragraph (o)(4)(iii)(A) of this section. You must record in the operating record documentation that the substitute sorbent will provide the same level of control as the original sorbent.

(p) *Maximum combustion chamber pressure.* If you comply with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure to prevent combustion systems leaks from hazardous waste combustion, you must perform instantaneous monitoring of pressure and the automatic waste feed cutoff system must be engaged when negative pressure is not adequately maintained.

(q) *Operating under different modes of operation.* If you operate under different modes of operation, you must establish operating parameter limits for each mode. You must document in the operating record when you change a mode of operation and begin complying with the operating limits for an alternative mode of operation.

(1) *Operating under otherwise applicable standards after the hazardous waste residence time has transpired.* As provided by §63.1206(b)(1)(ii), you may operate under otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act in lieu of the substantive requirements of this subpart.

(i) The otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act are applicable requirements under this subpart.

(ii) You must specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in your Documentation of Compliance under §63.1211(c), your Notification of Compliance under §63.1207(j), and your title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification, reporting, and recordkeeping.

(2) *Calculating rolling averages under different modes of operation.* When you transition to a different mode of operation, you must calculate rolling averages as follows:

(i) *Retrieval approach.* Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., you ignore continuous monitoring system values subsequently recorded under other modes of operation when you transition back to a mode of operation); or

(ii) *Start anew.* Calculate rolling averages anew without considering previous recordings.

(A) Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter.

(B) You may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or

(iii) *Seamless transition.* Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation.

(r) *Averaging periods.* The averaging periods specified in this section for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in paragraph (l)(1)(i) of this section for mercury.

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42300, July 10, 2000; 65 FR 67271, Nov. 9, 2000; 66 FR 24272, May 14, 2001; 66 FR 35106, July 3, 2001; 67 FR 6815, Feb. 13, 2002; 67 FR 6991, Feb. 14, 2002; 67 FR 77691, Dec. 19, 2002; 70 FR 59548, Oct. 12, 2005]

§ 63.1210 What are the notification requirements?

(a) *Summary of requirements.* (1) You must submit the following notifications to the Administrator:

Reference	Notification
63.9(b)	Initial notifications that you are subject to Subpart EEE of this Part.
63.9(d)	Notification that you are subject to special compliance requirements.
63.9(j)	Notification and documentation of any change in information already provided under §63.9.
63.1206(b)(5)(i)	Notification of changes in design, operation, or maintenance.
63.1206(c)(7)(ii)(C)	Notification of excessive bag leak detection system exceedances.
63.1207(e), 63.9(e) 63.9(g)(1) and (3)	Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.[1]
63.1210(b)	Notification of intent to comply.
63.1210(d), 63.1207(j), 63.1207(k), 63.1207(l), 63.9(h), 63.10(d)(2), 63.10(e)(2)	Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations.

[1]You may also be required on a case-by-case basis to submit a feedstream analysis plan under §63.1209(c)(3).

(2) You must submit the following notifications to the Administrator if you request or elect to comply with alternative requirements:

Reference	Notification, request, petition, or application
63.9(i)	You may request an adjustment to time periods or postmark deadlines for submittal and review of required information.
63.10(e)(3)(ii)	You may request to reduce the frequency of excess emissions and CMS performance reports.
63.10(f)	You may request to waive recordkeeping or reporting requirements.
63.1204(d)(2)(iii), 63.1220(d)(2)(iii)	Notification that you elect to comply with the emission averaging requirements for cement kilns with in-line raw mills.
63.1204(e)(2)(iii), 63.1220(e)(2)(iii)	Notification that you elect to comply with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks.
63.1206(b)(4), 63.1213, 63.6(i), 63.9(c)	You may request an extension of the compliance date for up to one year.

Reference	Notification, request, petition, or application
63.1206(b)(5)(i)(C)	You may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance.
63.1206(b)(8)(iii)(B)	If you elect to conduct particulate matter CEMS correlation testing and wish to have federal particulate matter and opacity standards and associated operating limits waived during the testing, you must notify the Administrator by submitting the correlation test plan for review and approval.
63.1206(b)(8)(v)	You may request approval to have the particulate matter and opacity standards and associated operating limits and conditions waived for more than 96 hours for a correlation test.
63.1206(b)(9)	Owners and operators of lightweight aggregate kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions.
63.1206(b)(10)	Owners and operators of cement kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas under certain conditions.
63.1206(b)(14)	Owners and operators of incinerators may elect to comply with an alternative to the particulate matter standard.
63.1206(b)(15)	Owners and operators of cement and lightweight aggregate kilns may request to comply with the alternative to the interim standards for mercury.
63.1206(c)(2)(ii)(C)	You may request to make changes to the startup, shutdown, and malfunction plan.
63.1206(c)(5)(i)(C)	You may request an alternative means of control to provide control of combustion system leaks.
63.1206(c)(5)(i)(D)	You may request other techniques to prevent fugitive emissions without use of instantaneous pressure limits.
63.1207(c)(2)	You may request to base initial compliance on data in lieu of a comprehensive performance test.
63.1207(d)(3)	You may request more than 60 days to complete a performance test if additional time is needed for reasons beyond your control.
63.1207(e)(3), 63.7(h)	You may request a time extension if the Administrator fails to approve or deny your test plan.
63.1207(h)(2)	You may request to waive current operating parameter limits during pretesting for more than 720 hours.
63.1207(f)(1)(ii)(D)	You may request a reduced hazardous waste feedstream analysis for organic hazardous air pollutants if the reduced analysis continues to be representative of organic hazardous air pollutants in your hazardous waste feedstreams.
63.1207(g)(2)(v)	You may request to operate under a wider operating range for a parameter during confirmatory performance testing.

Reference	Notification, request, petition, or application
63.1207(i)	You may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing.
63.1207(j)(4)	You may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond your control.
63.1207(l)(3)	After failure of a performance test, you may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting.
63.1209(a)(5), 63.8(f)	You may request: (1) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits.
63.1209(g)(1)	You may request approval of: (1) Alternatives to operating parameter monitoring requirements, except for standards that you must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit.
63.1209(l)(1)	You may request to extrapolate mercury feedrate limits.
63.1209(n)(2)	You may request to extrapolate semivolatile and low volatile metal feedrate limits.
63.1211(d)	You may request to use data compression techniques to record data on a less frequent basis than required by §63.1209.

(b) *Notification of intent to comply (NIC).* These procedures apply to sources that have not previously complied with the requirements of paragraph (b) of this section, and to sources that previously complied with the NIC requirements of §63.1210, which were in effect prior to October 11, 2000, that must make a technology change requiring a Class 1 permit modification to meet the standards of §§63.1219, 63.1220, and 63.1221.

(1) You must prepare a Notification of Intent to Comply that includes all of the following information:

(i) General information:

(A) The name and address of the owner/operator and the source;

(B) Whether the source is a major or an area source;

(C) Waste minimization and emission control technique(s) being considered;

(D) Emission monitoring technique(s) you are considering;

(E) Waste minimization and emission control technique(s) effectiveness;

(F) A description of the evaluation criteria used or to be used to select waste minimization and/or emission control technique(s); and

(G) A general description of how you intend to comply with the emission standards of this subpart.

(ii) As applicable to each source, information on key activities and estimated dates for these activities that will bring the source into compliance with emission control requirements of this subpart. You must include all of the following key activities and dates in your NIC:

(A) The dates by which you anticipate you will develop engineering designs for emission control systems or process changes for emissions;

(B) The date by which you anticipate you will commit internal or external resources for installing emission control systems or making process changes for emission control, or the date by which you will issue orders for the purchase of component parts to accomplish emission control or process changes.

(C) The date by which you anticipate you will submit construction applications;

(D) The date by which you anticipate you will initiate on-site construction, installation of emission control equipment, or process change;

(E) The date by which you anticipate you will complete on-site construction, installation of emission control equipment, or process change; and

(F) The date by which you anticipate you will achieve final compliance. The individual dates and milestones listed in paragraphs (b)(1)(ii)(A) through (F) of this section as part of the NIC are not requirements and therefore are not enforceable deadlines; the requirements of paragraphs (b)(1)(ii)(A) through (F) of this section must be included as part of the NIC only to inform the public of how you intend to comply with the emission standards of this subpart.

(iii) A summary of the public meeting required under paragraph (c) of this section;

(iv) If you intend to cease burning hazardous waste prior to or on the compliance date, the requirements of paragraphs (b)(1)(ii) and (b)(1)(iii) of this section do not apply. You must include in your NIC a schedule of key dates for the steps to be taken to stop hazardous waste activity at your combustion unit. Key dates include the date for submittal of RCRA closure documents required under subpart G, part 264 or subpart G, part 265 of this chapter.

(2) You must make a draft of the NIC available for public review no later than 30 days prior to the public meeting required under paragraph (c)(1) of this section or no later than 9 months after the effective date of the rule if you intend to cease burning hazardous waste prior to or on the compliance date.

(3) You must submit the final NIC to the Administrator no later than one year following the effective date of the emission standards of this subpart.

(c) *NIC public meeting and notice.* (1) Prior to the submission of the NIC to the permitting agency, and no later than 10 months after the effective date of the emission standards of this subpart, you must hold at least one informal meeting with the public to discuss anticipated activities described in the draft NIC for achieving compliance with the emission standards of this subpart. You must post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses;

(2) You must submit a summary of the meeting, along with the list of attendees and their addresses developed under paragraph (b)(1) of this section, and copies of any written comments or materials submitted at the meeting, to the Administrator as part of the final NIC, in accordance with paragraph (b)(1)(iii) of this section;

(3) You must provide public notice of the NIC meeting at least 30 days prior to the meeting and you must maintain, and provide to the Administrator upon request, documentation of the notice. You must provide public notice in all of the following forms:

(i) *Newspaper advertisement.* You must publish a notice in a newspaper of general circulation in the county or equivalent jurisdiction of your facility. In addition, you must publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdiction where such publication would be necessary to inform the affected public. You must publish the notice as a display advertisement.

(ii) *Visible and accessible sign.* You must post a notice on a clearly marked sign at or near the source. If you place the sign on the site of the hazardous waste combustor, the sign must be large enough to be readable from the nearest spot where the public would pass by the site.

(iii) *Broadcast media announcement.* You must broadcast a notice at least once on at least one local radio station or television station.

(iv) *Notice to the facility mailing list.* You must provide a copy of the notice to the facility mailing list in accordance with §124.10(c)(1)(ix) of this chapter.

(4) You must include all of the following in the notices required under paragraph (c)(3) of this section:

(i) The date, time, and location of the meeting;

(ii) A brief description of the purpose of the meeting;

(iii) A brief description of the source and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the source location;

(iv) A statement encouraging people to contact the source at least 72 hours before the meeting if they need special access to participate in the meeting;

(v) A statement describing how the draft NIC (and final NIC, if requested) can be obtained; and

(vi) The name, address, and telephone number of a contact person for the NIC.

(5) The requirements of this paragraph do not apply to sources that intend to cease burning hazardous waste prior to or on the compliance date.

(d) *Notification of compliance.* (1) The Notification of Compliance status requirements of §63.9(h) apply, except that:

(i) The notification is a Notification of Compliance, rather than compliance status;

(ii) The notification is required for the initial comprehensive performance test and each subsequent comprehensive and confirmatory performance test; and

(iii) You must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by §63.9(h)(2)(ii).

(2) Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable.

(3) The Notification of Compliance requirements of §63.1207(j) also apply.

[64 FR 53038, Sept. 30, 1999, as amended at 64 FR 63211, Nov. 19, 1999; 65 FR 42301, July 10, 2000; 66 FR 24272, May 14, 2001; 67 FR 6992, Feb. 14, 2002; 70 FR 59552, Oct. 12, 2005]

§ 63.1211 What are the recordkeeping and reporting requirements?

(a) *Summary of reporting requirements.* You must submit the following reports to the Administrator:

Reference	Report
63.10(d)(4)	Compliance progress reports, if required as a condition of an extension of the compliance date granted under §63.6(i).
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports.
63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports.
63.10(e)(3)	Excessive emissions and continuous monitoring system performance report and summary report.
63.1206(c)(2)(ii)(B)	Startup, shutdown, and malfunction plan.
63.1206(c)(3)(vi)	Excessive exceedances reports.
63.1206(c)(4)(iv)	Emergency safety vent opening reports.

(b) *Summary of recordkeeping requirements.* You must retain the following in the operating record:

Reference	Document, Data, or Information
63.1200, 63.10(b) and (c)	General. Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Administrator.
63.1204(d)(1)(ii), 63.1220(d)(1)(ii)	Documentation of mode of operation changes for cement kilns with in-line raw mills.
63.1204(d)(2)(ii), 63.1220(d)(2)(ii)	Documentation of compliance with the emission averaging requirements for cement kilns with in-line raw mills.

Reference	Document, Data, or Information
63.1204(e)(2)(ii), 63.1220(e)(2)(ii)	Documentation of compliance with the emission averaging requirements for preheater or preheater/precalciner kilns with dual stacks.
63.1206(b)(1)(ii)	If you elect to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, you must document in the operating record that you are in compliance with those requirements.
63.1206(b)(5)(ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
63.1206(b)(11)	Calculation of hazardous waste residence time.
63.1206(c)(2)	Startup, shutdown, and malfunction plan.
63.1206(c)(2)(v)(A)	Documentation of your investigation and evaluation of excessive exceedances during malfunctions.
63.1206(c)(3)(v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit.
63.1206(c)(3)(vii)	Documentation and results of the automatic waste feed cutoff operability testing.
63.1206(c)(4)(ii)	Emergency safety vent operating plan.
63.1206(c)(4)(iii)	Corrective measures for any emergency safety vent opening.
63.1206(c)(5)(ii)	Method used for control of combustion system leaks.
63.1206(c)(6)	Operator training and certification program.
63.1206(c)(7)(i)(D)	Operation and maintenance plan.
63.1209(c)(2)	Feedstream analysis plan.
63.1209(k)(6)(iii), 63.1209(k)(7)(ii), 63.1209(k)(9)(ii), 63.1209(o)(4)(iii)	Documentation that a substitute activated carbon, dioxin/furan formation reaction inhibitor, or dry scrubber sorbent will provide the same level of control as the original material.
63.1209(k)(7)(i)(C)	Results of carbon bed performance monitoring.
63.1209(q)	Documentation of changes in modes of operation.
63.1211(c)	Documentation of compliance.

(c) *Documentation of compliance.* (1) By the compliance date, you must develop and include in the operating record a Documentation of Compliance. You are not subject to this requirement, however, if you submit a Notification of Compliance under §63.1207(j) prior to the compliance date. Upon inclusion of the Documentation of Compliance in the operating record, hazardous waste burning incinerators, cement kilns, and lightweight aggregate kilns regulated under the interim standards of §§63.1203, 63.1204, and 63.1205 are no longer subject to compliance with the previously applicable Notification of Compliance.

(2) The Documentation of Compliance must identify the applicable emission standards under this subpart and the limits on the operating parameters under §63.1209 that will ensure compliance with those emission standards.

(3) You must include a signed and dated certification in the Documentation of Compliance that:

(i) Required CEMs and CMS are installed, calibrated, and continuously operating in compliance with the requirements of this subpart; and

(ii) Based on an engineering evaluation prepared under your direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation, and considering at a minimum the design, operation, and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feedstreams, and available emissions data:

(A) You are in compliance with the emission standards of this subpart; and

(B) The limits on the operating parameters under §63.1209 ensure compliance with the emission standards of this subpart.

(4) You must comply with the emission standards and operating parameter limits specified in the Documentation of Compliance.

(d) *Data compression.* You may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by §63.1209. You must submit the request for review and approval as part of the comprehensive performance test plan.

(1) You must record a data value at least once each ten minutes.

(2) For each CEMS or operating parameter for which you request to use data compression techniques, you must recommend:

(i) A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring you to revert to recording each one-minute value.

(A) If you exceed a fluctuation limit, you must record each one-minute value for a period of time not less than ten minutes.

(B) If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, you may reinitiate recording data values on a frequency of at least once each ten minutes; and

(ii) A data compression limit defined as the closest level to an operating parameter limit or emission standard at which reduced data recording is allowed.

(A) Within this level and the operating parameter limit or emission standard, you must record each one-minute average.

(B) The data compression limit should reflect a level at which you are unlikely to exceed the specific operating parameter limit or emission standard, considering its averaging period, with the addition of a new one-minute average.

[64 FR 53038, Sept. 30, 1999, as amended at 64 FR 63212, Nov. 19, 1999; 65 FR 42301, July 10, 2000; 66 FR 24272, May 14, 2001; 66 FR 35106, July 3, 2001; 67 FR 6993, Feb. 14, 2002; 70 FR 59554, Oct. 12, 2005]

§ 63.1212 What are the other requirements pertaining to the NIC?

(a) *Certification of intent to comply.* The Notice of Intent to Comply (NIC) must contain the following certification signed and dated by a responsible official as defined under §63.2 of this chapter: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) *New units.* Any source that files a RCRA permit application or permit modification request for construction of a hazardous waste combustion unit after October 12, 2005 must:

(1) Prepare a draft NIC according to §63.1210(b) and make it available to the public upon issuance of the notice of NIC public meeting per §63.1210(c)(3);

(2) Prepare a draft comprehensive performance test plan pursuant to the requirements of §63.1207 and make it available for public review upon issuance of the notice of NIC public meeting;

(3) Provide notice to the public of a pre-application meeting pursuant to §124.30 or notice to the public of a permit modification request pursuant to §270.42 and;

(4) Hold an informal public meeting 30 days following notice of NIC public meeting and notice of the pre-application meeting or notice of the permit modification request.

(c) *Information Repository specific to new combustion units.* (1) Any source that files a RCRA permit application or modification request for construction of a new hazardous waste combustion unit after October 12, 2005 may be required to establish an information repository if deemed appropriate.

(2) The Administrator may assess the need, on a case-by-case basis for an information repository. When assessing the need for a repository, the Administrator shall consider the level of public interest, the presence of an existing repository, and any information available via the New Source Review and Title V permit processes. If the Administrator determines a need for a repository, then the Administrator shall notify the facility that it must establish and maintain an information repository.

(3) The information repository shall contain all documents, reports, data, and information deemed necessary by the Administrator. The Administrator shall have the discretion to limit the contents of the repository.

(4) The information repository shall be located and maintained at a site chosen by the source. If the Administrator finds the site unsuitable for the purposes and persons for which it was established, due to problems with location, hours of availability, access, or other relevant considerations, then the Administrator shall specify a more appropriate site.

(5) The Administrator shall require the source to provide a written notice about the information repository to all individuals on the source mailing list.

(6) The source shall be responsible for maintaining and updating the repository with appropriate information throughout a period specified by the Administrator. The Administrator may close the repository at his or her discretion based on the considerations in paragraph (c)(2) of this section.

[70 FR 59555, Oct. 12, 2005]

...

§ 63.1214 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to requirements in §§63.1200, 63.1203, 63.1204, 63.1205, 63.1206(a), 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221.

(2) Approval of major alternatives to test methods under §§63.7(e)(2)(ii) and (f), 63.1208(b), and 63.1209(a)(1), as defined under §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §§63.8(f) and 63.1209(a)(5), as defined under §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §§63.10(f) and 63.1211(a) through (c), as defined under §63.90, and as required in this subpart.

[68 FR 37356, June 23, 2003, as amended at 70 FR 59555, Oct. 12, 2005]

§ 63.1215 What are the health-based compliance alternatives for total chlorine?

(a) *General* —(1) *Overview.* You may establish and comply with health-based compliance alternatives for total chlorine under the procedures prescribed in this section for your hazardous waste combustors other than hydrochloric acid production furnaces. You may comply with these health-based compliance alternatives in lieu of the emission standards for total chlorine provided under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221. To identify and comply with the limits, you must:

(i) Identify a total chlorine emission concentration (ppmv) expressed as chloride (Cl(-)) equivalent for each on-site hazardous waste combustor. You may select total chlorine emission concentrations as you choose to demonstrate eligibility for the risk-based limits under this section, except as provided by paragraph (b)(4) of this section;

(ii) Apportion the total chlorine emission concentration between HCl and Cl_2 according to paragraph (b)(6)(i) of this section, and calculate HCl and Cl_2emission rates (lb/hr) using the gas flowrate and other parameters from the most recent regulatory compliance test.

(iii) Calculate the annual average HCl-equivalent emission rate as prescribed in paragraph (b)(2) of this section.

(iv) Perform an eligibility demonstration to determine if your HCl-equivalent emission rate meets the national exposure standard and thus is below the annual average HCl-equivalent emission rate limit, as prescribed by paragraph (c) of this section;

(v) Submit your eligibility demonstration for review and approval, as prescribed by paragraph (e) of this section, which must include information to ensure that the 1-hour average HCl-equivalent emission rate limit is not exceeded, as prescribed by paragraph (d) of this section;

(vi) Demonstrate compliance with the annual average HCl-equivalent emission rate limit during the comprehensive performance test, as prescribed by the testing and monitoring requirements under paragraph (e) of this section;

(vii) Comply with compliance monitoring requirements, including establishing feedrate limits on total chlorine and chloride, and operating parameter limits on emission control equipment, as prescribed by paragraph (f) of this section; and

(viii) Comply with the requirements for changes, as prescribed by paragraph (h) of this section.

(2) *Definitions.* In addition to the definitions under §63.1201, the following definitions apply to this section:

1-Hour Average HCl-Equivalent Emission Rate means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using 1-hour RELs as the health risk metric for acute exposure.

1-Hour Average HCl-Equivalent Emission Rate Limit means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using 1-hour RELs as the health risk metric for acute exposure and which ensures that maximum 1-hour average ambient concentrations of HCl-equivalents do not exceed a Hazard Index of 1.0, rounded to the nearest tenths decimal place (0.1), at an off-site receptor location.

Acute Reference Exposure Level (aREL) means health thresholds below which there would be no adverse health effects for greater than once in a lifetime exposures of one hour. ARELs are developed by the California Office of Health Hazard Assessment and are available at *http://www.oehha.ca.gov/air/acute_rels/acuterel.html.*

Annual Average HCl-Equivalent Emission Rate means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using RfCs as the health risk metric for long-term exposure.

Annual Average HCl-Equivalent Emission Rate Limit means the HCl-equivalent emission rate (lb/hr) determined by equating the toxicity of chlorine to HCl using RfCs as the health risk metric for long-term exposure and which ensures that maximum annual average ambient concentrations of HCl equivalents do not exceed a Hazard Index of 1.0, rounded to the nearest tenths decimal place (0.1), at an off-site receptor location.

Hazard Index (HI) means the sum of more than one Hazard Quotient for multiple substances and/or multiple exposure pathways. In this section, the Hazard Index is the sum of the Hazard Quotients for HCl and chlorine.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For chronic inhalation exposures, the HQ is calculated under this section as the air concentration divided by the RfC. For acute inhalation exposures, the HQ is calculated under this section as the air concentration divided by the aREL.

Look-up table analysis means a risk screening analysis based on comparing the HCl-equivalent emission rate from the affected source to the appropriate HCl-equivalent emission rate limit specified in Tables 1 through 4 of this section.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

(b) *HCl-equivalent emission rates* . (1) You must express total chlorine emission rates for each hazardous waste combustor as HCl-equivalent emission rates.

(2) *Annual average rates* . You must calculate annual average toxicity-weighted HCl-equivalent emission rates for each combustor as follows:

$$ER_{tw} = ER_{HCl} + ER_{Cl2} \times (RfC_{HCl}/RfC_{Cl2})$$

Where:

ER_{LTtw} is the annual average HCl toxicity-weighted emission rate (HCl-equivalent emission rate) considering long-term exposures, lb/hr

ER_{HCl} is the emission rate of HCl in lbs/hr

ER_{Cl2} is the emission rate of chlorine in lbs/hr

RfC_{HCl} is the reference concentration of HCl

RfC_{Cl2} is the reference concentration of chlorine

(3) *1-hour average rates* . You must calculate 1-hour average toxicity-weighted HCl-equivalent emission rates for each combustor as follows:

$$ER_{STtw} = ER_{HCl} + ER_{Cl2} \times (aREL_{HCl}/aREL_{Cl2})$$

Where:

ER_{STtw} is the 1-hour average HCl toxicity-weighted emission rate (HCl-equivalent emission rate) considering 1-hour (short-term) exposures, lb/hr

ER_{HCl} is the emission rate of HCl in lbs/hr

ER_{Cl2} is the emission rate of chlorine in lbs/hr

$aREL_{HCl}$ is the 1-hour Reference Exposure Level of HCl

$aREL_{Cl2}$ is the 1-hour Reference Exposure Level of chlorine

(4) You must use the RfC values for hydrogen chloride and chlorine found at *http://epa.gov/ttn/atw/toxsource/ summary.html*.

(5) You must use the aREL values for hydrogen chloride and chlorine found at *http://www.oehha.ca.gov/air/ acute_rels/acuterel.html*.

(6) *Cl_2 HCl ratios* —(i) *Ratio for calculating annual average HCl-equivalent emission rates* . (A) To calculate the annual average HCl-equivalent emission rate (lb/hr) for each combustor, you must apportion the total chlorine emission concentration (ppmv chloride (Cl(-)) equivalent) between HCl and chlorine according to the historical average Cl_2/HCl volumetric ratio for all regulatory compliance tests.

(B) You must calculate HCl and Cl_2 emission rates (lb/hr) using the apportioned emission concentrations and the gas flowrate and other parameters from the most recent regulatory compliance test.

(C) You must calculate the annual average HCl-equivalent emission rate using these HCl and Cl_2emission rates and the equation in paragraph (b)(2) of this section.

(ii) *Ratio for calculating 1-hour average HCl-equivalent emission rates* . (A) To calculate the 1-hour average HCl-equivalent emission rate for each combustor as a criterion for you to determine under paragraph (d) of this section if an hourly rolling average feedrate limit on total chlorine and chloride may be waived, you must apportion the total chlorine emission concentration (ppmv chloride (Cl(-)) equivalent) between HCl and chlorine according to the historical highest Cl_2/HCl volumetric ratio for all regulatory compliance tests.

(B) You must calculate HCl and Cl_2 emission rates (lb/hr) using the apportioned emission concentrations and the gas flowrate and other parameters from the most recent regulatory compliance test.

(C) You must calculate the 1-hour average HCl-equivalent emission rate using the se HCl and Cl_2emission rates and the equation in paragraph (b)(3) of this section.

(iii) *Ratios for new sources* . (A) You must use engineering information to estimate the Cl_2/HCl volumetric ratio for a new source for the initial eligibility demonstration.

(B) You must use the Cl_2/HCl volumetric ratio demonstrated during the initial comprehensive performance test to demonstrate in the Notification of Compliance that your HCl-equivalent emission rate does not exceed your HCl-equivalent emission rate limit.

(C) When approving the test plan for the initial comprehensive performance test, the permitting authority will establish a periodic testing requirement, such as every 3 months for 1 year, to establish a record of representative Cl_2/HCl volumetric ratios.

(*1*) You must revise your HCl-equivalent emission rates and HCl-equivalent emission rate limits after each such test using the procedures prescribed in paragraphs (b)(6)(i) and (ii) of this section.

(*2*) If you no longer are eligible for the health-based compliance alternative, you must notify the permitting authority immediately and either:

(*i*) Submit a revised eligibility demonstration requesting lower HCl-equivalent emission rate limits, establishing lower HCl-equivalent emission rates, and establishing by downward extrapolation lower feedrate limits for total chlorine and chloride; or

(*ii*) Request a compliance schedule of up to three years to demonstrate compliance with the emission standards under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221.

(iv) *Unrepresentative or inadequate historical Cl_2/HCl volumetric ratios* . (A) If you believe that the Cl_2/HCl volumetric ratio for one or more historical regulatory compliance tests is not representative of the current ratio, you may request that the permitting authority allow you to screen those ratios from the analysis of historical ratios.

(B) If the permitting authority believes that too few historical ratios are available to calculate a representative average ratio or establish a maximum ratio, the permitting authority may require you to conduct periodic testing to establish representative ratios.

(v) *Updating Cl_2/HCl ratios* . You must include the Cl_2/HCl volumetric ratio demonstrated during each performance test in your data base of historical Cl_2/HCl ratios to update the ratios you establish under paragraphs (b)(6)(i) and (ii) of this section for subsequent calculations of the annual average and 1-hour average HCl-equivalent emission rates.

(7) *Emission rates are capped* . The hydrogen chloride and chlorine emission rates you use to calculate the HCl-equivalent emission rate limit for incinerators, cement kilns, and lightweight aggregate kilns must not result in total chlorine emission concentrations exceeding:

...

(ii) For incinerators that are new or reconstructed sources after April 19, 1996: 21 parts per million by volume, combined emissions, expressed as chloride (Cl(-)) equivalent, dry basis and corrected to 7 percent oxygen;

...

(c) *Eligibility demonstration* —(1) *General.* (i) You must perform an eligibility demonstration to determine whether the total chlorine emission rates you select for each on-site hazardous waste combustor meet the national exposure standards using either a look-up table analysis prescribed by paragraph (c)(3) of this section, or a site-specific compliance demonstration prescribed by paragraph (c)(4) of this section.

(ii) You must also determine in your eligibility demonstration whether each combustor may exceed the 1-hour HCl-equivalent emission rate limit absent an hourly rolling average limit on the feedrate of total chlorine and chloride, as provided by paragraph (d) of this section.

(2) *Definition of eligibility.* (i) Eligibility for the risk-based total chlorine standard is determined by comparing the annual average HCl-equivalent emission rate for the total chlorine emission rate you select for each combustor to the annual average HCl-equivalent emission rate limit.

(ii) The annual average HCl-equivalent emission rate limit ensures that the Hazard Index for chronic exposure from HCl and chlorine emissions from all on-site hazardous waste combustors is less than or equal to 1.0, rounded to the nearest tenths decimal place (0.1), for the actual individual most exposed to the facility's emissions, considering off-site locations where people reside and where people congregate for work, school, or recreation.

(iii) Your facility is eligible for the health-based compliance alternative for total chlorine if either:

(A) The annual average HCl-equivalent emission rate for each on-site hazardous waste combustor is below the appropriate value in the look-up table determined under paragraph (c)(3) of this section; or

(B) The annual average HCl-equivalent emission rate for each on-site hazardous waste combustor is below the annual average HCl-equivalent emission rate limit you calculate based on a site-specific compliance demonstration under paragraph (c)(4) of this section.

(3) *Look-up table analysis.* Look-up tables for the eligibility demonstration are provided as Tables 1 and 2 to this section.

(i) Table 1 presents annual average HCl-equivalent emission rate limits for sources located in flat terrain. For purposes of this analysis, flat terrain is terrain that rises to a level not exceeding one half the stack height within a distance of 50 stack heights.

(ii) Table 2 presents annual average HCl-equivalent emission rate limits for sources located in simple elevated terrain. For purposes of this analysis, simple elevated terrain is terrain that rises to a level exceeding one half the stack height, but that does not exceed the stack height, within a distance of 50 stack heights.

(iii) To determine the annual average HCl-equivalent emission rate limit for a source from the look-up table, you must use the stack height and stack diameter for your hazardous waste combustors and the distance between the stack and the property boundary.

(iv) If any of these values for stack height, stack diameter, and distance to nearest property boundary do not match the exact values in the look-up table, you must use the next lowest table value.

...

(4) *Site-specific compliance demonstration.* (i) You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration to calculate an annual average HCl-equivalent emission rate limit for each on-site hazardous waste combustor. An example of one approach for performing the demonstration for air toxics can be found in the EPA's "Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document," which may be obtained through the EPA's Air Toxics Web site at *http://www.epa.gov/ttn/fera/risk_atra_main.html.*

(ii) The annual average HCl-equivalent emission rate limit is the HCl-equivalent emission rate that ensures that the Hazard Index associated with maximum annual average exposures is not greater than 1.0 rounded to the nearest tenths decimal place (0.1).

(iii) To determine the annual average HCl-equivalent emission rate limit, your site-specific compliance demonstration must, at a minimum:

(A) Estimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations;

(B) Estimate the inhalation exposure for the actual individual most exposed to the facility's emissions from hazardous waste combustors, considering off-site locations where people reside and where people congregate for work, school, or recreation;

(C) Use site-specific, quality-assured data wherever possible;

(D) Use health-protective default assumptions wherever site-specific data are not available, and:

(E) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(iv) Your site-specific compliance demonstration need not:

(A) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(B) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

(d) *Assurance that the 1-hour HCl-equivalent emission rate limit will not be exceeded.* To ensure that the 1-hour HCl-equivalent emission rate limit will not be exceeded when complying with the annual average HCl-equivalent emission rate limit, you must establish a 1-hour average HCl-equivalent emission rate for each combustor, establish a 1-hour average HCl-equivalent emission rate limit for each combustor, and consider site-specific factors including prescribed criteria to determine if the 1-hour average HCl-equivalent emission rate limit may be exceeded absent an hourly rolling average limit on the feedrate of total chlorine and chloride. If the 1-hour average HCl-equivalent emission rate limit may be exceeded, you must establish an hourly rolling average feedrate limit on total chlorine as provided by paragraph (f)(3) of this section.

(1) *1-hour average HCl-equivalent emission rate.* You must calculate the 1-hour average HCl-equivalent emission rate from the total chlorine emission concentration you select for each source as prescribed in paragraph (b)(6)(ii)(C) of this section.

(2) *1-hour average HCl-equivalent emission rate limit.* You must establish the 1-hour average HCl-equivalent emission rate limit for each affected source using either a look-up table analysis or site-specific analysis:

(i) *Look-up table analysis.* Look-up tables are provided for 1-hour average HCl-equivalent emission rate limits as Table 3 and Table 4 to this section. Table 3 provides limits for facilities located in flat terrain. Table 4 provides limits for facilities located in simple elevated terrain. You must use the Tables to establish 1-hour average HCl-equivalent emission rate limits as prescribed in paragraphs (c)(3)(iii) through (c)(3)(v) of this section for annual average HCl-equivalent emission rate limits.

(ii) *Site-specific analysis.* The 1-hour average HCl-equivalent emission rate limit is the HCl-equivalent emission rate that ensures that the Hazard Index associated with maximum 1-hour average exposures is not greater than 1.0 rounded to the nearest tenths decimal place (0.1). You must follow the risk assessment procedures under paragraph (c)(4) of this section to estimate short-term inhalation exposures through the estimation of maximum 1-hour average ambient concentrations.

(3) *Criteria for determining whether the 1-hour HCl-equivalent emission rate may be exceeded absent an hourly rolling average limit on the feedrate of total chlorine and chloride.* An hourly rolling average feedrate limit on total chlorine and chloride is waived if you determine considering the criteria listed below that the long-term feedrate limit (and averaging period) established under paragraph (c)(4)(i) of this section will also ensure that the 1-hour average HCl-equivalent emission rate will not exceed the 1-hour average HCl-equivalent emission rate limit you calculate for each combustor.

(i) The ratio of the 1-hour average HCl-equivalent emission rate based on the total chlorine emission rate you select for each hazardous waste combustor to the 1-hour average HCl-equivalent emission rate limit for the combustor; and

(ii) The potential for the source to vary total chlorine and chloride feedrates substantially over the averaging period for the feedrate limit established under paragraph (c)(4)(i) of this section.

(e) *Review and approval of eligibility demonstrations* —(1) *Content of the eligibility demonstration* —(i) *General.* The eligibility demonstration must include the following information, at a minimum:

(A) Identification of each hazardous waste combustor combustion gas emission point (e.g., generally, the flue gas stack);

(B) The maximum and average capacity at which each combustor will operate, and the maximum rated capacity for each combustor, using the metric of stack gas volume (under both actual and standard conditions) emitted per unit of time, as well as any other metric that is appropriate for the combustor (e.g., million Btu/hr heat input for boilers; tons of dry raw material feed/hour for cement kilns);

(C) Stack parameters for each combustor, including, but not limited to stack height, stack diameter, stack gas temperature, and stack gas exit velocity;

(D) Plot plan showing all stack emission points, nearby residences and property boundary line;

(E) Identification of any stack gas control devices used to reduce emissions from each combustor;

(F) Identification of the RfC values used to calculate annual average HCl-equivalent emission rates and the aREL values used to calculate 1-hour average HCl-equivalent emission rates;

(G) Calculations used to determine the annual average and 1-hour average HCl-equivalent emission rates and rate limits, including calculation of the Cl_2/HCl ratios as prescribed by paragraph (b)(6) of this section;

(ii) *Additional content to implement the annual average HCl-equivalent emission rate limit.* You must include the following in your eligibility demonstration to implement the annual average HCl-equivalent emission rate limit:

(A) For incinerators, cement kilns, and lightweight aggregate kilns, calculations to confirm that the annual average HCl-equivalent emission rate that you calculate from the total chlorine emission rate you select for each combustor does not exceed the limits provided by paragraph (b)(7) of this section;

(B) Comparison of the annual average HCl-equivalent emission rate limit for each combustor to the annual average HCl-equivalent emission rate for the total chlorine emission rate you select for each combustor;

(C) The annual average HCl-equivalent emission rate limit for each hazardous waste combustor, and the limits on operating parameters required under paragraph (g)(1) of this section;

(D) Determination of the long-term chlorine feedrate limit, including the total chlorine system removal efficiency for sources that establish an (up to) annual rolling average feedrate limit under paragraph (g)(2)(ii) of this section;

(iii) *Additional content to implement the 1-hour average HCl-equivalent emission rate limit.* You must include the following in your eligibility demonstration to implement the 1-hour average HCl-equivalent emission rate limit:

(A) Determination of whether the combustor may exceed the 1-hour HCl-equivalent emission rate limit absent an hourly rolling average chlorine feedrate limit, including:

(*1*) Determination of the 1-hour average HCl-equivalent emission rate from the total chlorine emission rate you select for the combustor;

(*2*) Determination of the 1-hour average HCl-equivalent emission rate limit using either look-up Tables 3 and 4 to this section or site-specific risk analysis;

(*3*) Determination of the ratio of the 1-hour average HCl-equivalent emission rate to the 1-hour average HCl-equivalent emission rate limit for the combustor; and

(*4*) The potential for the source to vary total chlorine and chloride feedrates substantially over the averaging period for the long-term feedrate limit established under paragraphs (g)(2)(i) and (g)(2)(ii) of this section; and

(B) Determination of the hourly rolling average chlorine feedrate limit, including the total chlorine system removal efficiency.

(iv) *Additional content of a look-up table demonstration.* If you use the look-up table analysis to establish HCl-equivalent emission rate limits, your eligibility demonstration must also contain, at a minimum, the following:

(A) Documentation that the facility is located in either flat or simple elevated terrain; and

(B) For facilities with more than one on-site hazardous waste combustor, documentation that the sum of the ratios for all such combustors of the HCl-equivalent emission rate to the HCl-equivalent emission rate limit does not exceed 1.0.

(v) *Additional content of a site-specific compliance demonstration.* If you use a site-specific compliance demonstration, your eligibility demonstration must also contain, at a minimum, the following information to support your determination of the annual average HCl-equivalent emission rate limit for each combustor:

(A) Identification of the risk assessment methodology used;

(B) Documentation of the fate and transport model used;

(C) Documentation of the fate and transport model inputs, including the stack parameters listed in paragraph (d)(1)(i)(C) of this section converted to the dimensions required for the model;

(D) As applicable:

(*1*) Meteorological data;

(*2*) Building, land use, and terrain data;

(*3*) Receptor locations and population data, including areas where people congregate for work, school, or recreation; and

(*4*) Other facility-specific parameters input into the model;

(E) Documentation of the fate and transport model outputs; and

(F) Documentation of any exposure assessment and risk characterization calculations.

...

(ii) *New or reconstructed sources.* (A) *General.* The procedures for review and approval of eligibility demonstrations applicable to existing sources under paragraph (e)(2)(i) of this section also apply to new or reconstructed sources, except that the date you must submit the eligibility demonstration is as prescribed in this paragraph (e)(2)(ii).

(B) If you operate a new or reconstructed source that starts up before April 12, 2007, or a solid fuel boiler or liquid fuel boiler that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before April 12, 2007, you must either:

(*1*) Comply with the final total chlorine emission standards under §§63.1216, 63.1217, 63.1219, 63.1220, and 63.1221, by October 12, 2005, or upon startup, whichever is later, except for a standard that is more stringent than the standard proposed on April 20, 2004 for your source. If a final standard is more stringent than the proposed standard, you may comply with the proposed standard until October 14, 2008, after which you must comply with the final standard; or

(*2*) Submit an eligibility demonstration for review and approval under this section by April 12, 2006, and comply with the HCl-equivalent emission rate limits and operating requirements you establish in the eligibility demonstration.

...

(f) *Testing requirements* —(1) *General.* You must comply with the requirements for comprehensive performance testing under §63.1207.

(2) *System removal efficiency.* (i) You must calculate the total chlorine removal efficiency of the combustor during each run of the comprehensive performance test.

(ii) You must calculate the average system removal efficiency as the average of the test run averages.

(iii) If your source does not control emissions of total chlorine, you must assume zero system removal efficiency.

(3) *Annual average HCl-equivalent emission rate limit.* If emissions during the comprehensive performance test exceed the annual average HCl-equivalent emission rate limit, eligibility for emission limits under this section is not affected. This emission rate limit is an annual average limit even though compliance is based on a 12-hour or (up to) an annual rolling average feedrate limit on total chlorine and chloride because the feedrate limit is also used for compliance assurance for the semivolatile metal emission standard

(4) *1-hour average HCl-equivalent emission rate limit.* Total chlorine emissions during each run of the comprehensive performance test cannot exceed the 1-hour average HCl-equivalent emission rate limit.

...

(ii) *Bromine and sulfur considerations.* If you operate an incinerator, boiler, or lightweight aggregate kiln and your feedstreams contain bromine or sulfur during the comprehensive performance test at levels specified under paragraph (e)(2)(ii)(B) of this section, you must use EPA Method 320/321 or ASTM D 6735–01, or an equivalent method, to measure hydrogen chloride, and Method 26/26A, or an equivalent method, to measure chlorine and hydrogen chloride, and determine your chlorine emissions as follows:

(A) You must determine you chlorine emissions to be the higher of the value measured by Method 26/26A, or an equivalent method, or the value calculated by difference between the combined hydrogen chloride and chlorine levels measured by Method 26/26a, or an equivalent method, and the hydrogen chloride measurement from EPA Method 320/321 or ASTM D 6735–01, or an equivalent method.

(B) The procedures under paragraph (f)(2)(ii) of this section for determining hydrogen chloride and chlorine emissions apply if you feed bromine or sulfur during the performance test at the levels specified in this paragraph (f)(5)(ii)(B):

(*1*) If the bromine/chlorine ratio in feedstreams is greater than 5 percent by mass; or

(*2*) If the sulfur/chlorine ratio in feedstreams is greater than 50 percent by mass.

(g) *Monitoring requirements* —(1) *General.* You must establish and comply with limits on the same operating parameters that apply to sources complying with the MACT standard for total chlorine under §63.1209(o), except that feedrate limits on total chlorine and chloride must be established according to paragraphs (g)(2) and (g)(3) of this section:

(2) *Feedrate limit to ensure compliance with the annual average HCl-equivalent emission rate limit.* (i) For sources subject to the feedrate limit for total chlorine and chloride under §63.1209(n)(4) to ensure compliance with the semivolatile metals standard:

(A) The feedrate limit (and averaging period) for total chlorine and chloride to ensure compliance with the annual average HCl-equivalent emission rate limit is the same as required by §63.1209(n)(4), except as provided by paragraph (g)(2)(i)(B) of this section.

(B) The numerical value of the total chlorine and chloride feedrate limit (*i.e.*, not considering the averaging period) you establish under §63.1209(n)(4) must not exceed the value you calculate as the annual average HCl-equivalent emission rate limit (lb/hr) divided by [1 − system removal efficiency], where the system removal efficiency is calculated as prescribed by paragraph (f)(2) of this section.

(ii) For sources exempt from the feedrate limit for total chlorine and chloride under §63.1209(n)(4) because they comply with §63.1207(m)(2), the feedrate limit for total chlorine and chloride to ensure compliance with the annual average HCl-equivalent emission rate must be established as follows:

(A) You must establish an average period for the feedrate limit that does not exceed an annual rolling average;

(B) The numerical value of the total chlorine and chloride feedrate limit (*i.e.*, not considering the averaging period) must not exceed the value you calculate as the annual average HCl-equivalent emission rate limit (lb/hr) divided by [1 − system removal efficiency], where the system removal efficiency is calculated as prescribed by paragraph (f)(2) of this section.

(C) You must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by paragraph (b)(5)(i) of this section. You must calculate rolling averages thereafter as the average of the available one-minute values until enough one-minute values are available to calculate the rolling average period you select. At that time and thereafter, you update the rolling average feedrate each hour with a 60-minute average feedrate.

(3) *Feedrate limit to ensure compliance with the 1-hour average HCl-equivalent emission rate limit.* (i) You must establish an hourly rolling average feedrate limit on total chlorine and chloride to ensure compliance with the 1-hour average HCl-equivalent emission rate limit unless you determine that the hourly rolling average feedrate limit is waived under paragraph (d) of this section.

(ii) You must calculate the hourly rolling average feedrate limit for total chlorine and chloride as the 1-hour average HCl-equivalent emission rate limit (lb/hr) divided by [1 − system removal efficiency], where the system removal efficiency is calculated as prescribed by paragraph (f)(2)(ii) of this section.

(h) *Changes* —(1) *Changes over which you have control.* (i) *Changes that would affect the HCl-equivalent emission rate limit.* (A) If you plan to change the design, operation, or maintenance of the facility in a manner than would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, you must submit to the permitting authority prior to the change a revised eligibility demonstration documenting the lower emission rate limits and calculations of reduced total chlorine and chloride feedrate limits.

(B) If you plan to change the design, operation, or maintenance of the facility in a manner than would increase the annual average or 1-hour average HCl-equivalent emission rate limit, and you elect to increase your total chlorine and chloride feedrate limits. You must also submit to the permitting authority prior to the change a revised eligibility demonstration documenting the increased emission rate limits and calculations of the increased feedrate limits prior to the change.

(ii) *Changes that could affect system removal efficiency.* (A) If you plan to change the design, operation, or maintenance of the combustor in a manner than could decrease the system removal efficiency, you are subject to the requirements of §63.1206(b)(5) for conducting a performance test to reestablish the combustor's system removal efficiency and you must submit a revised eligibility demonstration documenting the lower system removal efficiency and the reduced feedrate limits on total chlorine and chloride.

(B) If you plan to change the design, operation, or maintenance of the combustor in a manner than could increase the system removal efficiency, and you elect to document the increased system removal efficiency to establish higher feedrate limits on total chlorine and chloride, you are subject to the requirements of §63.1206(b)(5) for conducting a performance test to reestablish the combustor's system removal efficiency. You must also submit to the permitting authority a revised eligibility demonstration documenting the higher system removal efficiency and the increased feedrate limits on total chlorine and chloride.

(2) *Changes over which you do not have control that may decrease the HCl-equivalent emission rate limits.* These requirements apply if you use a site-specific risk assessment under paragraph (c)(4) of this section to demonstrate eligibility for the health-based limits.

(i) *Proactive review.* You must review the documentation you use in your eligibility demonstration every five years from the date of the comprehensive performance test and submit for review and approval with the comprehensive performance test plan either a certification that the information used in your eligibility demonstration has not changed in a manner that would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, or a revised eligibility demonstration.

(ii) *Reactive review.* If in the interim between your comprehensive performance tests you have reason to know of changes that would decrease the annual average or 1-hour average HCl-equivalent emission rate limit, you must submit a revised eligibility demonstration as soon as practicable but not more frequently than annually.

(iii) *Compliance schedule.* If you determine that you cannot demonstrate compliance with a lower annual average HCl-equivalent emission rate limit during the comprehensive performance test because you need additional time to complete changes to the design or operation of the source, you may request that the permitting authority grant you additional time to make those changes as quickly as practicable.

Table 1 of §63.1215: Annual Average HCl - Equivalent Emission Rates (lb/hr) - Flat Terrain

Table 2 of §63.1215: Annual Average HCl - Equivalent Emission Rates (lb/hr) - Simple Elevated Terrain

Table 3 of §63.1215: 1-Hour Average HCl - Equivalent Emission Rates (lb/hr) - Flat Terrain

Table 4 of §63.1215: 1-Hour Average HCl - Equivalent Emission Rates (lb/hr) - Simple Elevated Terrain

[70 FR 59565, Oct. 12, 2005]

§ 63.1219 What are the replacement standards for hazardous waste incinerators?

...

(b) *Emission limits for new sources.* You must not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(1)(i) Dioxins and furans in excess of 0.11 ng TEQ/dscm corrected to 7 percent oxygen for incinerators equipped with either a waste heat boiler or dry air pollution control system; or

(ii) Dioxins and furans in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen for sources not equipped with either a waste heat boiler or dry air pollution control system;

(iii) A source equipped with a wet air pollution control system followed by a dry air pollution control system is not considered to be a dry air pollution control system, and a source equipped with a dry air pollution control system followed by a wet air pollution control system is considered to be a dry air pollution control system for purposes of this standard;

(2) Mercury in excess of 8.1 µgm/dscm, corrected to 7 percent oxygen;

(3) Cadmium and lead in excess of 10 µgm/dscm, combined emissions, corrected to 7 percent oxygen;

(4) Arsenic, beryllium, and chromium in excess of 23 µgm/dscm, combined emissions, corrected to 7 percent oxygen;

(5) For carbon monoxide and hydrocarbons, either:

(i) Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under paragraph (b)(5)(ii) of this section, you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or

(ii) Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;

(6) Hydrogen chloride and chlorine gas in excess of 21 parts per million by volume, combined emissions, expressed as a chloride (Cl(−)) equivalent, dry basis and corrected to 7 percent oxygen; and

(7) Except as provided by paragraph (e) of this section, particulate matter in excess of 0.0015 gr/dscf, corrected to 7 percent oxygen.

(c) *Destruction and removal efficiency (DRE) standard* . (1) *99.99% DRE* . Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. You must calculate DRE for each POHC from the following equation:

$$DRE = [1 - (W_{out}/ W_{in})] \times 100\%$$

Where:

W_{in} = mass feedrate of one POHC in a waste feedstream; and

W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE* . If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under paragraph (c)(3) of this section. You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo- *p* -dioxins and dibenzofurans. You must use the equation in paragraph (c)(1) of this section to calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituent (POHC)* . (i) You must treat each POHC in the waste feed that you specify under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section.

(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.

(d) *Significant figures* . The emission limits provided by paragraphs (a) and (b) of this section are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance.

(e) *Alternative to the particulate matter standard* . (1). *General* . In lieu of complying with the particulate matter standards of this section, you may elect to comply with the following alternative metal emission control requirement:

(2) *Alternative metal emission control requirements for existing incinerators* . (i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 230 µgm/dscm, combined emissions, corrected to 7 percent oxygen; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 92 µgm/dscm, combined emissions, corrected to 7 percent oxygen.

(3) *Alternative metal emission control requirements for new incinerators* . (i) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain cadmium, lead, and selenium in excess of 10 µgm/dscm, combined emissions, corrected to 7 percent oxygen; and,

(ii) You must not discharge or cause combustion gases to be emitted into the atmosphere that contain antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel in excess of 23 µgm/dscm, combined emissions, corrected to 7 percent oxygen.

(4) *Operating limits*. Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in paragraphs (e)(2) and (e)(3) of this section pursuant to §63.1209(n), except that semivolatile metal feedrate limits apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

[70 FR 59570, Oct. 12, 2005]

Table 1 to Subpart EEE of Part 63—General Provisions Applicable to Subpart EEE

Reference	Applies to subpart EEE	Explanation
63.1	Yes.	
63.2	Yes.	
63.3	Yes.	
63.4	Yes.	
63.5	Yes.	
63.6(a), (b), (c), (d), and (e)	Yes.	
63.6(f)	Yes	Except that the performance test requirements of Sec. 63.1207 apply instead of §63.6(f)(2)(iii)(B).
63.6(g) and (h)	Yes.	
63.6(i)	Yes	Section 63.1213 specifies that the compliance date may also be extended for inability to install necessary emission control equipment by the compliance date because of implementation of pollution prevention or waste minimization controls.
63.6(j)	Yes.	
63.7(a)	Yes	Except §63.1207(e)(3) allows you to petition the Administrator under §63.7(h) to provide an extension of time to conduct a performance test.
63.7(b)	Yes	Except §63.1207(e) requires you to submit the site-specific test plan for approval at least one year before the comprehensive performance test is scheduled to begin.

Reference	Applies to subpart EEE	Explanation
63.7(c)	Yes	Except §63.1207(e) requires you to submit the site-specific test plan (including the quality assurance provisions under §63.7(c)) for approval at least one year before the comprehensive performance test is scheduled to begin.
63.7(d)	Yes.	
63.7(e)	Yes	Except §63.1207 prescribes operations during performance testing and §63.1209 specifies operating limits that will be established during performance testing (such that testing is likely to be representative of the extreme range of normal performance).
63.7(f)	Yes.	
63.7(g)	Yes	Except §63.1207(j) requiring that you submit the results of the performance test (and the notification of compliance) within 90 days of completing the test, unless the Administrator grants a time extension, applies instead of §63.7(g)(1).
63.7(h)	Yes	Except §63.1207(c)(2) allows data in lieu of the initial comprehensive performance test, and §63.1207(m) provides a waiver of certain performance tests. You must submit requests for these waivers with the site-specific test plan.
63.8(a) and (b)	Yes.	
63.8(c)	Yes	Except: (1) §63.1211(c) that requires you to install, calibrate, and operate CMS by the compliance date applies instead of §63.8(c)(3); and (2) the performance specifications for CO, HC, and O2 CEMS in subpart B, of this chapter requiring that the detectors measure the sample concentration at least once every 15 seconds for calculating an average emission level once every 60 seconds apply instead of §63.8(c)(4)(ii).
63.8(d)	Yes.	
63.8(e)	Yes	Except §63.1207(e) requiring you to submit the site-specific comprehensive performance test plan and the CMS performance evaluation test plan for approval at least one year prior to the planned test date applies instead of §§63.8(e)(2) and (3)(iii).
63.8(f) and (g)	Yes.	
63.9(a)	Yes.	
63.9(b)	Yes	*Note:* Section 63.9(b)(1)(ii) pertains to notification requirements for area sources that become a major source, and §63.9(b)(2)(v) requires a major source determination. Although area sources are subject to all provisions of this subpart (Subpart EEE), these sections nonetheless apply because the major source determination may affect the applicability of part 63 standards or title V permit requirements to other sources (i.e., other than a hazardous waste combustor) of hazardous air pollutants at the facility.
63.9(c) and (d)	Yes.	

Reference	Applies to subpart EEE	Explanation
63.9(e)	Yes	Except §63.1207(e) which requires you to submit the comprehensive performance test plan for approval one year prior to the planned performance test date applies instead of §63.9(e).
63.9(f)	Yes	Section 63.9(f) applies if you are allowed under §63.1209(a)(1)(v) to use visible determination of opacity for compliance in lieu of a COMS.
63.9(g)	Yes	Except §63.9(g)(2) pertaining to COMS does not apply.
63.9(h)	Yes	Except §63.1207(j) requiring you to submit the notification of compliance within 90 days of completing a performance test unless the Administrator grants a time extension applies instead of §63.9(h)(2)(iii). Note: Even though area sources are subject to this subpart, the major source determination required by §63.9(h)(2)(i)(E) is applicable to hazardous waste combustors for the reasons discussed above.
63.9(i) and (j)	Yes.	
63.10	Yes	Except reports of performance test results required under §63.10(d)(2) may be submitted up to 90 days after completion of the test.
63.11	No.	
63.12–63.15	Yes.	

[67 FR 6994, Feb. 14, 2002]

Appendix to Subpart EEE of Part 63—Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors

1. Applicability and Principle

1.1 Applicability. These quality assurance requirements are used to evaluate the effectiveness of quality control (QC) and quality assurance (QA) procedures and the quality of data produced by continuous emission monitoring systems (CEMS) that are used for determining compliance with the emission standards on a continuous basis as specified in the applicable regulation. The QA procedures specified by these requirements represent the minimum requirements necessary for the control and assessment of the quality of CEMS data used to demonstrate compliance with the emission standards provided under this subpart EEE of part 63. Owners and operators must meet these minimum requirements and are encouraged to develop and implement a more extensive QA program. These requirements supersede those found in part 60, Appendix F, of this chapter. Appendix F does not apply to hazardous waste-burning devices.

1.2 Principle. The QA procedures consist of two distinct and equally important functions. One function is the assessment of the quality of the CEMS data by estimating accuracy. The other function is the control and improvement of the quality of the CEMS data by implementing QC policies and corrective actions. These two functions form a control loop. When the assessment function indicates that the data quality is inadequate, the source must immediately stop burning hazardous waste. The CEM data control effort must be increased until the data quality is acceptable before hazardous waste burning can resume.

a. In order to provide uniformity in the assessment and reporting of data quality, this procedure explicitly specifies the assessment methods for response drift and accuracy. The methods are based on procedures included in the applicable performance specifications provided in appendix B to part 60 of this chapter. These procedures also require the analysis of the EPA audit samples concurrent with certain reference method (RM) analyses as specified in the applicable RM's.

b. Because the control and corrective action function encompasses a variety of policies, specifications, standards, and corrective measures, this procedure treats QC requirements in general terms to allow each source owner or operator to develop a QC system that is most effective and efficient for the circumstances.

2. Definitions

2.1 *Continuous Emission Monitoring System (CEMS).* The total equipment required for the determination of a pollutant concentration. The system consists of the following major subsystems:

2.1.1 *Sample Interface.* That portion of the CEMS used for one or more of the following: sample acquisition, sample transport, and sample conditioning, or protection of the monitor from the effects of the stack effluent.

2.1.2 *Pollutant Analyzer.* That portion of the CEMS that senses the pollutant concentration and generates a proportional output.

2.1.3 *Diluent Analyzer.* That portion of the CEMS that senses the diluent gas (O2) and generates an output proportional to the gas concentration.

2.1.4 *Data Recorder.* That portion of the CEMS that provides a permanent record of the analyzer output. The data recorder may provide automatic data reduction and CEMS control capabilities.

2.2 *Relative Accuracy (RA).* The absolute mean difference between the pollutant concentration determined by the CEMS and the value determined by the reference method (RM) plus the 2.5 percent error confidence coefficient of a series of test divided by the mean of the RM tests or the applicable emission limit.

2.3 *Calibration Drift (CD).* The difference in the CEMS output readings from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.4 *Zero Drift (ZD).* The difference in CEMS output readings at the zero pollutant level after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.

2.5 *Calibration Standard.* Calibration standards produce a known and unchanging response when presented to the pollutant analyzer portion of the CEMS, and are used to calibrate the drift or response of the analyzer.

2.6 *Relative Accuracy Test Audit (RATA).* Comparison of CEMS measurements to reference method measurements in order to evaluate relative accuracy following procedures and specification given in the appropriate performance specification.

2.7 *Absolute Calibration Audit (ACA).* Equivalent to calibration error (CE) test defined in the appropriate performance specification using NIST traceable calibration standards to challenge the CEMS and assess accuracy.

2.8 *Rolling Average.* The average emissions, based on some (specified) time period, calculated every minute from a one-minute average of four measurements taken at 15-second intervals.

3. QA/QC Requirements

3.1 QC Requirements. a. Each owner or operator must develop and implement a QC program. At a minimum, each QC program must include written procedures describing in detail complete, step-by-step procedures and operations for the following activities.

1. Checks for component failures, leaks, and other abnormal conditions.

2. Calibration of CEMS.

3. CD determination and adjustment of CEMS.

4. Integration of CEMS with the automatic waste feed cutoff (AWFCO) system.

5. Preventive Maintenance of CEMS (including spare parts inventory).

6. Data recording, calculations, and reporting.

7. Checks of record keeping.

8. Accuracy audit procedures, including sampling and analysis methods.

9. Program of corrective action for malfunctioning CEMS.

10. Operator training and certification.

11. Maintaining and ensuring current certification or naming of cylinder gasses, metal solutions, and particulate samples used for audit and accuracy tests, daily checks, and calibrations.

b. Whenever excessive inaccuracies occur for two consecutive quarters, the current written procedures must be revised or the CEMS modified or replaced to correct the deficiency causing the excessive inaccuracies. These written procedures must be kept on record and available for inspection by the enforcement agency.

3.2 QA Requirements. Each source owner or operator must develop and implement a QA plan that includes, at a minimum, the following.

1. QA responsibilities (including maintaining records, preparing reports, reviewing reports).

2. Schedules for the daily checks, periodic audits, and preventive maintenance.

3. Check lists and data sheets.

4. Preventive maintenance procedures.

5. Description of the media, format, and location of all records and reports.

6. Provisions for a review of the CEMS data at least once a year. Based on the results of the review, the owner or operator must revise or update the QA plan, if necessary.

4. CD and ZD Assessment and Daily System Audit

4.1 *CD and ZD Requirement.* Owners and operators must check, record, and quantify the ZD and the CD at least once daily (approximately 24 hours) in accordance with the method prescribed by the manufacturer. The CEMS calibration must, at a minimum, be adjusted whenever the daily ZD or CD exceeds the limits in the Performance Specifications. If, on any given ZD and/or CD check the ZD and/or CD exceed(s) two times the limits in the Performance Specifications, or if the cumulative adjustment to the ZD and/or CD (see Section 4.2) exceed(s) three times the limits in the Performance Specifications, hazardous waste burning must immediately cease and the CEMS must be serviced and recalibrated. Hazardous waste burning cannot resume until the owner or operator documents that the CEMS is in compliance with the Performance Specifications by carrying out an ACA.

4.2 *Recording Requirements for Automatic ZD and CD Adjusting Monitors.* Monitors that automatically adjust the data to the corrected calibration values must record the unadjusted concentration measurement prior to resetting the calibration, if performed, or record the amount of the adjustment.

4.3 *Daily System Audit.* The audit must include a review of the calibration check data, an inspection of the recording system, an inspection of the control panel warning lights, and an inspection of the sample transport and interface system (e.g., flowmeters, filters, etc.) as appropriate.

4.4 *Data Recording and Reporting.* All measurements from the CEMS must be retained in the operating record for at least 5 years.

5. Performance Evaluation for CO, O_2, and HC CEMS

Carbon Monoxide (CO), Oxygen (O_2), and Hydrocarbon (HC) CEMS. An Absolute Calibration Audit (ACA) must be conducted quarterly, and a Relative Accuracy Test Audit (RATA) (if applicable, see sections 5.1 and 5.2) must be conducted yearly. An Interference Response Tests must be performed whenever an ACA or a RATA is conducted. When a performance test is also required under §63.1207 to document compliance with emission standards, the RATA must coincide with the performance test. The audits must be conducted as follows.

5.1 *Relative Accuracy Test Audit (RATA).* This requirement applies to O_2 and CO CEMS. The RATA must be conducted at least yearly. Conduct the RATA as described in the RA test procedure (or alternate procedures section) described in the applicable Performance Specifications. In addition, analyze the appropriate performance audit samples received from the EPA as described in the applicable sampling methods.

5.2 *Absolute Calibration Audit (ACA).* The ACA must be conducted at least quarterly except in a quarter when a RATA (if applicable, see section 5.1) is conducted instead. Conduct an ACA as described in the calibration error (CE) test procedure described in the applicable Performance Specifications.

5.3 *Interference Response Test.* The interference response test must be conducted whenever an ACA or RATA is conducted. Conduct an interference response test as described in the applicable Performance Specifications.

5.4 *Excessive Audit Inaccuracy.* If the RA from the RATA or the CE from the ACA exceeds the criteria in the applicable Performance Specifications, hazardous waste burning must cease immediately. Hazardous waste burning cannot resume until the owner or operator takes corrective measures and audit the CEMS with a RATA to document that the CEMS is operating within the specifications.

6. Other Requirements

6.1 *Performance Specifications.* CEMS used by owners and operators of HWCs must comply with the following performance specifications in appendix B to part 60 of this chapter:

Table I: Performance Specifications for CEMS

CEMS	Performance specification
Carbon monoxide	4B
Oxygen	4B
Total hydrocarbons	8A

6.2 *Downtime due to Calibration.* Facilities may continue to burn hazardous waste for a maximum of 20 minutes while calibrating the CEMS. If all CEMS are calibrated at once, the facility must have twenty minutes to calibrate all the CEMS. If CEMS are calibrated individually, the facility must have twenty minutes to calibrate each CEMS. If the CEMS are calibrated individually, other CEMS must be operational while the individual CEMS is being calibrated.

6.3 Span of the CEMS.

6.3.1 *CO CEMS.* The CO CEM must have two ranges, a low range with a span of 200 ppmv and a high range with a span of 3000 ppmv at an oxygen correction factor of 1. A one-range CEM may be used, but it must meet the performance specifications for the low range in the specified span of the low range.

6.3.2 $O_{2\ CEMS}$. The O_2 CEM must have a span of 25 percent. The span may be higher than 25 percent if the O_2 concentration at the sampling point is greater than 25 percent.

6.3.3 *HC CEMS.* The HC CEM must have a span of 100 ppmv, expressed as propane, at an oxygen correction factor of 1.

6.3.4 *CEMS Span Values.* When the Oxygen Correction Factor is Greater than 2. When an owner or operator installs a CEMS at a location of high ambient air dilution, *i.e.,* where the maximum oxygen correction factor as determined by the permitting agency is greater than 2, the owner or operator must install a CEM with a lower span(s), proportionate to the larger oxygen correction factor, than those specified above.

6.3.5 *Use of Alternative Spans.* Owner or operators may request approval to use alternative spans and ranges to those specified. Alternate spans must be approved in writing in advance by the Administrator. In considering approval of alternative spans and ranges, the Administrator will consider that measurements beyond the span will be recorded as values at the maximum span for purposes of calculating rolling averages.

6.3.6 *Documentation of Span Values.* The span value must be documented by the CEMS manufacturer with laboratory data.

6.4.1 *Moisture Correction.* Method 4 of appendix A, part 60 of this chapter, must be used to determine moisture content of the stack gasses.

6.4.2 *Oxygen Correction Factor.* Measured pollutant levels must be corrected for the amount of oxygen in the stack according to the following formula:

$$P_c = P_m \times 14/(E - Y)$$

Where:

P_c = concentration of the pollutant or standard corrected to 7 percent oxygen, dry basis;

P_m = measured concentration of the pollutant, dry basis;

E = volume fraction of oxygen in the combustion air fed into the device, on a dry basis (normally 21 percent or 0.21 if only air is fed);

Y = measured fraction of oxygen on a dry basis at the sampling point.

The oxygen correction factor is:

$$OCF = 14/(E - Y)$$

6.4.3 *Temperature Correction.* Correction values for temperature are obtainable from standard reference materials.

6.5 *Rolling Average.* A rolling average is the arithmetic average of all one-minute averages over the averaging period.

6.5.1 *One-Minute Average for CO and HHC CEMS.* One-minute averages are the arithmetic average of the four most recent 15-second observations and must be calculated using the following equation:

$$\bar{c} = \sum_{i=1}^{4} \frac{c_i}{4}$$

Where:

C = the one minute average

c_i = a fifteen-second observation from the CEM

Fifteen second observations must not be rounded or smoothed. Fifteen-second observations may be disregarded only as a result of a failure in the CEMS and allowed in the source's quality assurance plan at the time of the CEMS failure. One-minute averages must not be rounded, smoothed, or disregarded.

6.5.2 Ten Minute Rolling Average Equation. The ten minute rolling average must be calculated using the following equation:

$$C_{RA} = \sum_{i=1}^{10} \frac{\bar{c}_i}{10}$$

Where:

C_{RA} = The concentration of the standard, expressed as a rolling average

c_i = a one minute average

6.5.3 *Hourly Rolling Average Equation for CO and THC CEMS and Operating Parameter Limits.* The rolling average, based on a specific number integer of hours, must be calculated using the following equation:

$$C_{RA} = \sum_{i=1}^{60} \frac{\overline{c}_i}{60}$$

Where:

c_{RA} = The concentration of the standard, expressed as a rolling average

c_i = a one minute average

6.5.4 Averaging Periods for CEMS other than CO and THC. The averaging period for CEMS other than CO and THC CEMS must be calculated as a rolling average of all one-hour values over the averaging period. An hourly average is comprised of 4 measurements taken at equally spaced time intervals, or at most every 15 minutes. Fewer than 4 measurements might be available within an hour for reasons such as facility downtime or CEMS calibration. If at least two measurements (30 minutes of data) are available, an hourly average must be calculated. The *n* -hour rolling average is calculated by averaging the *n* most recent hourly averages.

6.6 Units of the Standards for the Purposes of Recording and Reporting Emissions. Emissions must be recorded and reported expressed after correcting for oxygen, temperature, and moisture. Emissions must be reported in metric, but may also be reported in the English system of units, at 7 percent oxygen, 20 °C, and on a dry basis.

6.7 Rounding and Significant Figures. Emissions must be rounded to two significant figures using ASTM procedure E–29–90 or its successor. Rounding must be avoided prior to rounding for the reported value.

7. Bibliography

1. 40 CFR part 60, appendix F, "Quality Assurance Procedures: Procedure 1. Quality Assurance Requirements for Gas continuous Emission Monitoring Systems Used For Compliance Determination".

[64 FR 53038, Sept. 30, 1999, as amended at 65 FR 42301, July 10, 2000]

SECTION E.3 FACILITY OPERATION CONDITIONS

Emission Unit Description

(b) Boilers:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-01-23-GG12 is considered an affected facility.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-01-17-W25 is considered an affected facility.

(4) Cleaver Brooks natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-03-17-W25 is considered an affected facility.

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-02-23-GG12 is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]

E.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for the four (4) natural gas and/or fuel oil fired boilers (CRN-0128-01-17-W25, CRN-0128-03-17-W25, CRN-0115-01-23-GG12, and CRN-0115-02-23-GG12) as specified in Appendix A of 40 CFR Part 60, in accordance with the schedule in 40 CFR Part 60, Subpart Dc.

E.3.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc][326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Dc, which are incorporated by reference as 326 IAC 12-1 for the four (4) boilers (CRN-0128-01-17-W25, CRN-0128-03-17-W25, CRN-0150-01-17-CC23, and CRN-0150-03-17-CC23) as specified as follows:

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

...

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.*, the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.42c Standard for sulfur dioxide (SO_2).

...

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight

percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

...

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

...

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

...

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions....

...

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f), as applicable.

...

§ 60.46c Emission monitoring for sulfur dioxide.

...

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

...

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

...

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

...

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

...

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

...

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

...

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

E.3.3 One Time Deadlines Relating to Small Industrial-Commercial-Institutional Steam Generating Units NSPS [40 CFR Part 60, Subpart Dc][326 IAC 12-1]

The Permittee shall comply with the following notification requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
Initial Notification of Construction	40 CFR 60.7(a)(1)	Boilers CRN-0128-01-17-W25, CRN-0128-03-17-W25, CRN-0150-01-17-CC23, and CRN-0150-03-17-CC23	30 days within construction
Initial Notification of Start-up	40 CFR 60.7(a)(3)	Boilers CRN-0128-01-17-W25, CRN-0128-03-17-W25, CRN-0150-01-17-	15 days within start-up

Requirement	Rule Cite	Affected Facility	Deadline
		CC23, and CRN-0150-03-17-CC23	

SECTION E.4 FACILITY OPERATION CONDITIONS

Emission Unit Description

(o) One (1) flare manufacturing process located in Buildings 2504 and 145, constructed in 2002, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(p) One (1) flare manufacturing process, located in Building 198, constructed in 2002, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.2540, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, in accordance with the schedule specified in Table 12 of 40 CFR Part 63, Subpart FFFF.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.4.2 Miscellaneous Organic Chemical Manufacturing NESHAP [40 CFR Part 63, Subpart FFFF]

The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart FFFF for the flare manufacturing processes located in Buildings 2504, 145, and 198, as specified as follows:

Subpart FFFF—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

Source: 68 FR 63888, Nov. 10, 2003, unless otherwise noted.

What This Subpart Covers

...

§ 63.2430 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards.

...

§ 63.2435 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA).

...

§ 63.2440 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous organic chemical manufacturing affected source.

(b) The miscellaneous organic chemical manufacturing affected source is the facilitywide collection of MCPU and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in §63.2435(b)(1).

(c) A new affected source is described by either paragraph (c)(1) or (2) of this section.

(1) Each affected source defined in paragraph (b) of this section for which you commenced construction or reconstruction after April 4, 2002, and you meet the applicability criteria at the time you commenced construction or reconstruction.

(2) Each dedicated MCPU that has the potential to emit 10 tons per year (tpy) of any one HAP or 25 tpy of combined HAP, and you commenced construction or reconstruction of the MCPU after April 4, 2002. For the purposes of this paragraph, an MCPU is an affected source in the definition of the term "reconstruction" in §63.2.

(d) An MCPU that is also a CMPU under §63.100 is reconstructed for the purposes of this subpart if, and only if, the CMPU meets the requirements for reconstruction in §63.100(l)(2).

...

§ 63.2445 When do I have to comply with this subpart?

...

(b) If you have an existing source on November 10, 2003, you must comply with the requirements for existing sources in this subpart no later than May 10, 2008.

(c) You must meet the notification requirements in §63.2515 according to the dates specified in that section and in subpart A of this part 63. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 10442, Mar. 1, 2006; 71 FR 40332, July 14, 2006]

....

§ 63.2450 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in tables 1 through 7 to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in §§63.2455 through 63.2490 (or the alternative means of

compliance in §63.2495, §63.2500, or §63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in §§63.2515, 63.2520, and 63.2525.

(b) *Determine halogenated vent streams.* You must determine if an emission stream is a halogenated vent stream, as defined in §63.2550, by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.

...

(e) *Requirements for control devices.* (1) Except when complying with §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of §63.982(c) and the requirements referenced therein.

(2) Except when complying with §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of §63.982(b) and the requirements referenced therein.

(3) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of §63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in §63.115(d)(2)(v).

...

(g) *Requirements for performance tests.* The requirements specified in paragraphs (g)(1) through (5) of this section apply instead of or in addition to the requirements specified in subpart SS of this part 63.

(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.

(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.

(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraph (g)(3)(i) or (ii) of this section.

(i) If you elect to comply with the percent reduction emission limits in tables 1 through 7 to this subpart, and carbon disulfide is the principal organic HAP component (*i.e.,* greater than 50 percent of the HAP in the stream by volume), then you must use Method 18, or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.

(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in tables 1 through 7 to this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.

(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(5) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in §63.2520(d)(1).

...

(h) *Design evaluation.* To determine the percent reduction of a small control device that is used to comply with an emission limit specified in table 1, 2, 3, or 5 to this subpart, you may elect to conduct a design evaluation as specified in §63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For transfer racks, the design evaluation must demonstrate that the control device achieves the required control efficiency during the reasonably expected maximum transfer loading rate.

...

(l) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart.

(m) *Reporting.* (1) When §§63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of this subpart. The compliance report must include the information specified in §63.2520(e), as well as the information specified in referenced subparts.

(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.

(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

...

(p) Opening a safety device, as defined in §63.2550, is allowed at any time conditions require it to avoid unsafe conditions.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40332, July 14, 2006]

...

§ 63.2460 What requirements must I meet for batch process vents?

(a) You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.

(b) *Group status.* If a process has batch process vents, as defined in §63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP

emissions from each of the batch process vents within the process using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (7) of this section.

(1) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, you must use the procedures in §63.1257(d)(2)(i)(C)(*3*).

(2) To calculate emissions from depressurization of a vessel without a process condenser, you must use the procedures in §63.1257(d)(2)(i)(D)(*10*).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P_{system}= absolute pressure of the receiving vessel;

P_i= partial pressure of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

P_j= partial pressure of condensables (including HAP) determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

MW_{HAP}= molecular weight of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(4) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, you must use the procedures in §63.1257(d)(3)(i)(B), except as specified in paragraphs (b)(4)(i) through (vii) of this section.

(i) You must determine the flowrate of gas (or volume of gas), partial pressures of condensables, temperature (T), and HAP molecular weight (MW_{HAP}) at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(ii) You must assume that all of the components contained in the condenser exit vent stream are in equilibrium with the same components in the exit condensate stream (except for noncondensables).

(iii) You must perform a material balance for each component.

(iv) For the emissions from gas evolution, the term for time, t, must be used in Equation 12 to 40 CFR part 63, subpart GGG.

(v) Emissions from empty vessel purging shall be calculated using Equation 36 to 40 CFR part 63, subpart GGG and the exit temperature and exit pressure conditions of the condenser or the conditions of the dedicated receiver.

(vi) You must conduct an engineering assessment as specified in §63.1257(d)(2)(ii) for each emission episode that is not due to vapor displacement, purging, heating, depressurization, vacuum operations, gas evolution, air drying, or empty vessel purging. The requirements of paragraphs (b)(3) through (4) of this section shall apply.

(vii) You may elect to conduct an engineering assessment if you can demonstrate to the Administrator that the methods in §63.1257(d)(3)(i)(B) are not appropriate.

(5) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in paragraph (b)(5)(i), (ii), or (iii) of this section.

(i) If you comply with the alternative standard specified in §63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in §63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in §63.1257(b)(8)(ii)(C).

(iii) If you comply with an emission limit using a flare that meets the requirements specified in §63.987.

(6) You may change from Group 2 to Group 1 in accordance with either paragraph (b)(6)(i) or (ii) of this section. You must comply with the requirements of this section and submit the test report in the next Compliance report.

(i) You may switch at any time after operating as Group 2 for at least 1 year so that you can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. You may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in your next compliance report in accordance with §63.2520(e)(10)(i).

(ii) If the conditions in paragraph (b)(6)(i) of this section are not applicable, you must provide a 60-day advance notice in accordance with §63.2520(e)(10)(ii) before switching.

(7) As an alternative to determining the uncontrolled organic HAP emissions as specified in §63.1257(d)(2)(i) and (ii), you may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000 lb/yr. You must provide data and supporting rationale in your notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. You must keep records of the non-reactive organic HAP usage as specified in §63.2525(e)(2) and include information in compliance reports as specified in §63.2520(e)(5)(iv).

(c) Exceptions to the requirements in subparts SS and WW of this part 63 are specified in paragraphs (c)(1) through (9) of this section.

(1) *Process condensers.* Process condensers, as defined in §63.2550(i), are not considered to be control devices for batch process vents. You must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.

(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to this subpart FFFF by using a flare that meets the requirements of §63.987.

(ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to §63.1257(b)(8) instead of under normal operating conditions as specified in §63.7(e)(1). The requirements in §63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes

of this subpart FFFF, references in §63.997(b)(1) to "methods specified in §63.997(e)" include the methods specified in §63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation to demonstrate initial compliance with a percent reduction requirement for a condenser, you may determine controlled emissions using the procedures specified in §63.1257(d)(3)(i)(B) and paragraphs (b)(3) through (4) of this section.

(iv) When §63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in §63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in §63.1257(d)(3)(iii)(B) to the alternative standard in §63.1254(c) means §63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by §63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to §63.2525(c).

(4) *Averaging periods.* As an alternative to the requirement for daily averages in §63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(5) [Reserved]

(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for

supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m \left(\frac{Q_s + Q_a}{Q_a} \right) \qquad (Eq.\ 1)$$

Where:

C_a= corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m= actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Q_a= total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Q_s= total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

(8) *Terminology.* When the term "storage vessel" is used in subpart WW of this part 63, the term "process tank," as defined in §63.2550(i), applies for the purposes of this section.

(9) *Requirements for a biofilter.* If you use a biofilter to meet either the 95 percent reduction requirement or outlet concentration requirement specified in Table 2 to this subpart, you must meet the requirements specified in paragraphs (c)(9)(i) through (iv) of this section.

(i) *Operational requirements.* The biofilter must be operated at all times when emissions are vented to it.

(ii) *Performance tests.* To demonstrate initial compliance, you must conduct a performance test according to the procedures in §63.997 and paragraphs (c)(9)(ii)(A) through (D) of this section. The design evaluation option for small control devices is not applicable if you use a biofilter.

(A) Keep up-to-date, readily accessible continuous records of either the biofilter bed temperature averaged over the full period of the performance test or the outlet total organic HAP or TOC concentration averaged over the full period of the performance test. Include these data in your notification of compliance status report as required by §63.999(b)(3)(ii).

(B) Record either the percent reduction of total organic HAP achieved by the biofilter determined as specified in §63.997(e)(2)(iv) or the concentration of TOC or total organic HAP determined as specified in §63.997(e)(2)(iii) at the outlet of the biofilter, as applicable.

(C) If you monitor the biofilter bed temperature, you may elect to use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15 minute (or shorter) averages for purposes of establishing operating limits for the biofilter. If you use multiple thermocouples, include your rationale for their site selection in your notification of compliance status report.

(D) Submit a performance test report as specified in §63.999(a)(2)(i) and (ii). Include the records from paragraph (c)(9)(ii)(B) of this section in your performance test report.

(iii) *Monitoring requirements.* Use either a biofilter bed temperature monitoring device (or multiple devices) capable of providing a continuous record or an organic monitoring device capable of providing a continuous record. Keep records of temperature or other parameter monitoring results as specified in §63.998(b) and (c), as applicable. General requirements for monitoring are contained in §63.996. If you monitor temperature, the operating temperature range must be based on only the temperatures measured during the performance test; these data may not be supplemented by engineering assessments or manufacturer's recommendations as otherwise allowed in §63.999(b)(3)(ii)(A). If you establish the operating range (minimum and maximum temperatures) using data from previous performance tests in accordance with §63.996(c)(6), replacement of the biofilter media with the same type of media is not considered a process change under §63.997(b)(1). You may expand your biofilter bed temperature operating range by conducting a repeat performance test that demonstrates compliance with the 95 percent reduction requirement or outlet concentration limit, as applicable.

(iv) *Repeat performance tests.* You must conduct a repeat performance test using the applicable methods specified in §63.997 within 2 years following the previous performance test and within 150 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40333, July 14, 2006]

...

§ 63.2480 What requirements must I meet for equipment leaks?

...

(b) If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.

...

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under §63.1022(b)(1) or §63.181(b)(1)(i).

...

§ 63.2495 How do I comply with the pollution prevention standard?

(a) You may elect to comply with the pollution prevention alternative requirements specified in paragraphs (a) (1) and (2) of this section in lieu of the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for any MCPU for which initial startup occurred before April 4, 2002.

(1) You must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65 percent from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. For any reduction in the HAP factor that you achieve by reducing HAP that are also volatile organic compounds (VOC), you must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor that you achieve by reducing a HAP that is not a VOC, you may not increase the VOC factor.

(2) Any MCPU for which you seek to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). You may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). You may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption.

(3) You may comply with the requirements of paragraph (a)(1) of this section for a series of processes, including situations where multiple processes are merged, if you demonstrate to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes.

(b) *Exclusions.* (1) You must comply with the emission limitations and work practice standards contained in tables 1 through 7 of this subpart for all HAP that are generated in the MCPU and that are not included in consumption, as defined in §63.2550. If any vent stream routed to the combustion control is a halogenated vent stream, as defined in §63.2550, then hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of §63.994 and the requirements referenced therein.

(2) You may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes.

(c) *Initial compliance procedures.* To demonstrate initial compliance with paragraph (a) of this section, you must prepare a demonstration summary in accordance with paragraph (c) (1) of this section and calculate baseline and target annual HAP and VOC factors in accordance with paragraphs (c) (2) and (3) of this section.

(1) *Demonstration plan.* You must prepare a pollution prevention demonstration plan that contains, at a minimum, the information in paragraphs (c)(1) (i) through (iii) of this section for each MCPU for which you comply with paragraph (a) of this section.

(i) Descriptions of the methodologies and forms used to measure and record consumption of HAP and VOC compounds.

(ii) Descriptions of the methodologies and forms used to measure and record production of the product(s).

(iii) Supporting documentation for the descriptions provided in accordance with paragraphs (c)(1) (i) and (ii) of this section including, but not limited to, samples of operator log sheets and daily, monthly, and/or annual inventories of materials and products. You must describe how this documentation will be used to calculate the annual factors required in paragraph (d) of this section.

(2) *Baseline factors.* You must calculate baseline HAP and VOC factors by dividing the consumption of total HAP and total VOC by the production rate, per process, for the first 3-year period in which the process was operational, beginning no earlier than the period consisting of the 1994 through 1996 calendar years.

(3) *Target annual factors.* You must calculate target annual HAP and VOC factors. The target annual HAP factor must be equal to 35 percent of the baseline HAP factor. The target annual VOC factor must be lower than the baseline VOC factor by an amount equivalent to the reduction in any HAP that is also a VOC, on a mass basis. The target annual VOC factor may be the same as the baseline VOC factor if the only HAP you reduce is not a VOC.

(d) *Continuous compliance requirements.* You must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures specified in paragraphs (d) (1)

through (3) of this section. To show continuous compliance, the annual factors must be equal to or less than the target annual factors calculated according to paragraph (c)(3) of this section.

(1) To calculate the annual factors, you must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph (d)(2) or (3) of this section, as applicable.

(2) For continuous processes, you must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (i.e., annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section.

(3) For batch processes, you must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (*i.e.,* annual rolling average calculated every 10 batches), except as specified in paragraphs (d)(3) (i) and (ii) of this section.

(i) If you produce more than 10 batches during a month, you must calculate the annual factors at least once during that month.

(ii) If you produce less than 10 batches in a 12-month period, you must calculate the annual factors for the number of batches in the 12-month period since the previous calculations.

(e) *Records.* You must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPU for which you are complying with paragraph (a) of this section.

(f) *Reporting.* (1) You must include the pollution prevention demonstration plan in the precompliance report required by §63.2520(c).

(2) You must identify all days when the annual factors were above the target factors in the compliance reports.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40336, July 14, 2006]

...

§ 63.2500 How do I comply with emissions averaging?

(a) For an existing source, you may elect to comply with the percent reduction emission limitations in Tables 1, 2, 4, 5, and 7 to this subpart by complying with the emissions averaging provisions specified in §63.150, except as specified in paragraphs (b) through (f) of this section.

(b) The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of §63.150(d)(5).

(c) References in §63.150 to §§63.112 through 63.130 mean the corresponding requirements in §§63.2450 through 63.2490, including applicable monitoring, recordkeeping, and reporting.

(d) References to "periodic reports" in §63.150 mean "compliance report" for the purposes of this subpart.

(e) For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in §63.1257(d)(2)(i) and (ii) instead of the procedures in §63.150(g)(2). Multiply the calculated emissions

per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits.

(f) References to "storage vessels" in §63.150 mean "storage tank" as defined in §63.2550 for the purposes of this subpart.

...

§ 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to this subpart and the requirements in §§63.2455 through 63.2470, you may comply with the emission limits in paragraph (a) of this section and demonstrate compliance in accordance with the requirements in paragraph (b) of this section.

(a) *Emission limits and work practice standards.* (1) You must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph (a)(1)(i) or (ii) of this section.

(i) If you use a combustion control device, it must reduce HAP emissions as specified in paragraphs (a)(1)(i)(A), (B), and (C) of this section.

(A) To an outlet TOC concentration of 20 parts per million by volume (ppmv) or less.

(B) To an outlet concentration of hydrogen halide and halogen HAP of 20 ppmv or less.

(C) As an alternative to paragraph (a)(1)(i)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95 percent by weight in the scrubber.

(ii) If you use a noncombustion control device(s), it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halide and halogen HAP of 50 ppmv or less.

(2) Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in Tables 1 through 3 to this subpart.

(b) *Compliance requirements.* To demonstrate compliance with paragraph (a) of this section, you must meet the requirements of §63.1258(b)(5) beginning no later than the initial compliance date specified in §63.2445, except as specified in paragraphs (b)(1) through (9) of this section.

(1) You must comply with the requirements in §63.983 and the requirements referenced therein for closed-vent systems.

(2) When §63.1258(b)(5)(i) refers to §§63.1253(d) and 63.1254(c), the requirements in paragraph (a) of this section apply for the purposes of this subpart FFFF.

(3) When §63.1258(b)(5)(i)(B) refers to "HCl," it means "total hydrogen halide and halogen HAP" for the purposes of this subpart FFFF.

(4) When §63.1258(b)(5)(ii) refers to §63.1257(a)(3), it means §63.2450(j)(5) for the purposes of this subpart FFFF.

(5) You must submit the results of any determination of the target analytes of predominant HAP in the notification of compliance status report.

(6) If you elect to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must meet the requirements in paragraphs (b)(6)(i) and (ii) of this section.

(i) Demonstrate initial compliance with the 95 percent reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with §63.994 and the requirements referenced therein. You must submit the results of the initial compliance demonstration in the notification of compliance status report.

(ii) Install, operate, and maintain CPMS for the scrubber as specified in §§63.994(c) and 63.2450(k), instead of as specified in §63.1258(b)(5)(i)(C).

(7) If flow to the scrubber could be intermittent, you must install, calibrate, and operate a flow indicator as specified in §63.2460(c)(7).

(8) Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data.

(9) The requirements in paragraph (a) of this section do not apply to emissions from storage tanks during periods of planned routine maintenance of the control device that do not exceed 240 hr/yr. You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr in accordance with the procedures specified in §63.2470(d). You must comply with the recordkeeping and reporting specified in §§63.998(d)(2)(ii) and 63.999(c)(4) for periods of planned routine maintenance.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005]

...

§ 63.2515 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) *Initial notification.* As specified in §63.9(b)(2), if you startup your affected source before November 10, 2003, you must submit an initial notification not later than 120 calendar days after November 10, 2003.

(2) As specified in §63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to this subpart, you must also submit the test plan required by §63.7(c) and the emission profile with the notification of the performance test.

...

§ 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 11 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.2445 and ending on June 30 or December 31, whichever date is the first date following the end of the first 6 months after the compliance date that is specified for your affected source in §63.2445.

(2) The first compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the first reporting period specified in paragraph (b)(1) of this section.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) *Precompliance report.* You must submit a precompliance report to request approval for any of the items in paragraphs (c)(1) through (7) of this section. We will either approve or disapprove the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date. To change any of the information submitted in the report, you must notify us 60 days before the planned change is to be implemented.

(1) Requests for approval to set operating limits for parameters other than those specified in §§63.2455 through 63.2485 and referenced therein. Alternatively, you may make these requests according to §63.8(f).

(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to §63.2460(c)(5) are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to §63.2460(c)(3).

(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions in accordance with §63.1257(d)(2)(ii). This requirement does not apply to calculations of hydrogen halide and halogen HAP emissions as specified in §63.2465(b), to determinations that the total HAP concentration is less than 50 ppmv, or if you use previous test data to establish the uncontrolled emissions.

(5) The pollution prevention demonstration plan required in §63.2495(c)(1), if you are complying with the pollution prevention alternative.

(6) Documentation of the practices that you will implement to minimize HAP emissions from streams that contain energetics and organic peroxides, and rationale for why meeting the emission limit specified in Tables 1 through 7 to this subpart would create an undue safety hazard.

(7) For fabric filters that are monitored with bag leak detectors, an operation and maintenance plan that describes proper operation and maintenance procedures, and a corrective action plan that describes corrective actions to be taken, and the timing of those actions, when the PM concentration exceeds the set point and activates the alarm.

(d) *Notification of compliance status report.* You must submit a notification of compliance status report according to the schedule in paragraph (d)(1) of this section, and the notification of compliance status report must contain the information specified in paragraph (d)(2) of this section.

(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in §63.2445.

(2) The notification of compliance status report must include the information in paragraphs (d)(2)(i) through (ix) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP usage or HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to §§63.2455 through 63.2485. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) All operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for control devices.

(vi) Identification of parts of the affected source subject to overlapping requirements described in §63.2535 and the authority under which you will comply.

(vii) The information specified in §63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 6 to this subpart.

(viii) Identify storage tanks for which you are complying with the vapor balancing alternative in §63.2470(e).

(ix) Records as specified in §63.2535(l)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.

(e) *Compliance report.* The compliance report must contain the information specified in paragraphs (e)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in §63.2550, according to paragraphs (e)(5)(i), (ii), (iii), and (iv) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in §63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in §63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.

(10) *Notification of process change.* (i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.

(C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in §63.2460(b)(6)(i).

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40336, July 14, 2006]

...

§ 63.2525 What records must I keep?

You must keep the records specified in paragraphs (a) through (k) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in §63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in paragraph (e)(2), (3), or (4) of this section, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in paragraph (e)(1) of this section.

(1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in paragraph (e)(1)(i), (ii), or (iii) of this section.

(i) The MCPU does not process, use, or generate HAP.

(ii) You control the Group 2 batch process vents using a flare that meets the requirements of §63.987.

(iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.

(2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in §63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.

(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.

(4) If you meet none of the conditions specified in paragraphs (e)(1) through (3) of this section, you must keep records of the information specified in paragraphs (e)(4)(i) through (iv) of this section.

(i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.

(ii) A record of whether each batch operated was considered a standard batch.

(iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with §63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in §63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by §63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.,* identify the overlapping equipment between process units) required by §63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by §63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by §63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by §63.2535(l)(2)(iv).

(j) In the SSMP required by §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40337, July 14, 2006]

...

§ 63.2540 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

...

§ 63.2545 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency also has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not delegated to the State, local, or tribal agency.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.2450(a) under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

...

§ 63.2550 What definitions apply to this subpart?

(a) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in §63.981, except as specified in §§63.2450(k)(2) and (m), 63.2470(c)(2), 63.2475(b), and paragraph (i) of this section.

(b) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F have the meaning given to them in §65.2.

(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in §63.1020.

(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in §63.1061, except as specified in §§63.2450(m), 63.2470(c)(2), and paragraph (i) of this section.

(e) For an affected source complying with the requirements in §§63.132 through 63.149, the terms used in this subpart and §§63.132 through 63.149 have the meaning given them in §§63.101 and 63.111, except as specified in §63.2450(m) and paragraph (i) of this section.

(f) For an affected source complying with the requirements in §§63.104 and 63.105, the terms used in this subpart and in §§63.104 and 63.105 of this subpart have the meaning given them in §63.101, except as specified in §§63.2450(m), 63.2490(b), and paragraph (i) of this section.

(g) For an affected source complying with requirements in §§63.1253, 63.1257, and 63.1258, the terms used in this subpart and in §§63.1253, 63.1257, and 63.1258 have the meaning given them in §63.1251, except as specified in §63.2450(m) and paragraph (i) of this section.

(h) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F, have the meaning given them in 40 CFR 65.2.

(i) All other terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, and in this paragraph (i). If a term is defined in §63.2, §63.101, §63.111, §63.981, §63.1020, §63.1061, §63.1251, or §65.2 and in this paragraph (i), the definition in this paragraph (i) applies for the purposes of this subpart.

Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to this subpart), chillers and refrigeration systems, and other equipment and activities that are not directly involved (*i.e.,* they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or isolated intermediate.

Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.

Batch process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;

(2) Bottoms receivers;

(3) Surge control vessels;

(4) Gaseous streams routed to a fuel gas system(s);

(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limits and work practice standards in Tables 4, 6, and 7 to this subpart;

(6) Drums, pails, and totes;

(7) Flexible elephant trunk systems that draw ambient air (*i.e.,* the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP are not part of any batch process vent. A vent from a unit operation, or a vent from multiple unit operations that are manifolded together, from which total uncontrolled HAP emissions are less than 200 lb/yr is not a batch process vent; emissions for all emission episodes associated with the unit operation(s) must be included in the determination of the total mass emitted. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in §63.1257(d)(2)(ii), except that you do not need to demonstrate that the equations in §63.1257(d)(2)(i) do not apply, and the precompliance reporting requirements specified in §63.1257(d)(2)(ii)(E) do not apply for the purposes of this demonstration; equations specified in §63.1257(d)(2)(i), as applicable; test data using Method 18 of 40 CFR part 60, appendix A; or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part.

Biofilter means an enclosed control system such as a tank or series of tanks with a fixed roof that contact emissions with a solid media (such as bark) and use microbiological activity to transform organic pollutants in a process vent stream to innocuous compounds such as carbon dioxide, water, and inorganic salts. Wastewater treatment processes such as aeration lagoons or activated sludge systems are not considered to be biofilters.

Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.

Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in §63.2.

Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.

Continuous operation means any operation that is not a batch operation.

Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in §63.107(b) through (h), or meets the criteria specified in §63.107(i), except:

(1) The reference in §63.107(e) to a chemical manufacturing process unit that meets the criteria of §63.100(b) means an MCPU that meets the criteria of §63.2435(b);

(2) The reference in §63.107(h)(4) to §63.113 means Table 1 to this subpart;

(3) The references in §63.107(h)(7) to §§63.119 and 63.126 mean Tables 4 and 5 to this subpart; and

(4) For the purposes of §63.2455, all references to the characteristics of a process vent (*e.g.,* flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.

(5) The reference to "total organic HAP" in §63.107(d) means "total HAP" for the purposes of this subpart FFFF.

(6) The references to an "air oxidation reactor, distillation unit, or reactor" in §63.107 mean any continuous operation for the purposes of this subpart.

(7) A separate determination is required for the emissions from each MCPU, even if emission streams from two or more MCPU are combined prior to discharge to the atmosphere or to a control device.

Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in §63.2435(d) also may be shared by other processes.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission point means each continuous process vent, batch process vent, storage tank, transfer rack, and wastewater stream.

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.

Excess emissions means emissions greater than those allowed by the emission limit.

Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (*e.g.,* blue, black, and red resins).

Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.

Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.

Group 1 continuous process vent means a continuous process vent for which the flow rate is greater than or equal to 0.005 standard cubic meter per minute, and the total resource effectiveness index value, calculated according to §63.2455(b), is less than or equal to 1.9 at an existing source and less than or equal to 5.0 at a new source.

Group 2 continuous process vent means a continuous process vent that does not meet the definition of a Group 1 continuous process vent.

Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.

Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in §63.111, greater than or equal to 1.5 pound per square inch absolute.

Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in §63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in §63.132(d) for compounds in Table 8 to subpart G of this part 63.

Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogen atoms mean chlorine and fluorine.

Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in §63.115(d)(2)(v).

HAP metals means the metal portion of antimony compounds, arsenic compounds, beryllium compounds, cadmium compounds, chromium compounds, cobalt compounds, lead compounds, manganese compounds, mercury compounds, nickel compounds, and selenium compounds.

Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of §63.180(d). The provisions of §63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Isolated intermediate means a product of a process that is stored before subsequent processing. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage. The storage equipment is part of the MCPU that produces the isolated intermediate and is not assigned as specified in §63.2435(d).

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in §63.111, except that it applies to all HAP rather than only organic HAP.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in §63.2435(b). For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products;

(4) Quality assurance/quality control laboratories are not considered part of any process; and

(5) Ancillary activities are not considered a process or part of any process.

(6) The end of a process that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the extruder, die plate, or solid-state reactor, except in two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual HAP monomer from the solid, then the solvent removal operation is the last step in the process. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step in the process.

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in §63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o-structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Point of determination means each point where process wastewater exits the MCPU or control device.

Note to definition for point of determination: The regulation allows determination of the characteristics of a wastewater stream: At the point of determination; or downstream of the point of determination if corrections are made for changes in flow rate and annual average concentration of soluble HAP and partially soluble HAP compounds as determined according to procedures in §63.144 of subpart G in this part 63. Such changes include losses by air emissions; reduction of annual average concentration or changes in flow rate by mixing with other water or wastewater streams; and reduction in flow rate or annual average concentration by treating or otherwise handling the wastewater stream to remove or destroy HAP.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process condenser means a condenser whose primary purpose is to recover material as an integral part of an MCPU. All condensers recovering condensate from an MCPU at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers. Typically, a primary condenser or condensers in series are considered to be integral to the MCPU if they are capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse or for sale for fuel value, use, or reuse. This definition does not apply to a condenser that is used to remove materials that would hinder performance of a downstream recovery device as follows:

(1) To remove water vapor that would cause icing in a downstream condenser, or

(2) To remove water vapor that would negatively affect the adsorption capacity of carbon in a downstream carbon adsorber, or

(3) To remove high molecular weight organic compounds or other organic compounds that would be difficult to remove during regeneration of a downstream carbon adsorber.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other equipment within the process or a product storage tank. A process tank has emissions that are related to the characteristics of the batch cycle, and it does not accumulate product over multiple batches. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams and from wastewater streams for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. For the purposes of meeting requirements in table 2 to this subpart, the recovery device must not be a process condenser and must recover chemicals to be reused in a process on site. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily

diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.

Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.

Startup means the setting in operation of a continuous operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in §63.2435(d). The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks;

(5) Bottoms receivers;

(6) Surge control vessels; and

(7) Process tanks.

Supplemental gases means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not

considered supplemental gases. Air required to operate combustion device burner(s) is not considered supplemental gases.

Surge control vessel means feed drums, recycle drums, and intermediate vessels as part of any continuous operation. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous operations.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in §63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.

Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater means water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in tables 8 and 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in tables 8 and 9 to this subpart of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater. The following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a stream that contains only wastewater as defined in this paragraph (i).

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40338, July 14, 2006]

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Table 2 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Batch Process Vents

As required in §63.2460, you must meet each emission limit and work practice standard in the following table that applies to your batch process vents:

For each . . .	Then you must . . .	And you must . . .
1. Process with Group 1 batch process vents	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or	Not applicable.
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of recovery devices or a biofilter, except you may elect to comply with the requirements of subpart WW of this part for any process tank; or	Not applicable.
	c. Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through a closed-vent system to a flare or by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration ≤ 20 ppmv as TOC or total organic HAP.	For all other batch process vents within the process, reduce collective organic HAP emissions as specified in item 1.a and/or item 1.b of this table.
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥ 99 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤ 0.45 kg/hr; or iii. Reduce overall emissions of hydrogen halide and halogen HAP to a concentration ≤ 20 ppmv.

	b. Use a halogen reduction device before the combustion control device	Reduce the halogen atom mass emission rate to ≤ 0.45 kg/hr or to a concentration ≤ 20 ppmv.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40339, July 14, 2006]

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Table 11 to Subpart FFFF of Part 63—Requirements for Reports

As required in §63.2520(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Precompliance report	The information specified in §63.2520(c)	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report	The information specified in §63.2520(d)	No later than 150 days after the compliance date specified in §63.2445.
3. Compliance report	The information specified in §63.2520(e)	Semiannually according to the requirements in §63.2520(b).

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Table 12 to Subpart FFFF of Part 63—Applicability of General Provisions to Subpart FFFF

As specified in §63.2540, the parts of the General Provisions that apply to you are shown in the following table:

Citation	Subject	Explanation
§63.1	Applicability	Yes.
§63.2	Definitions	Yes.
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities	Yes.
§63.5	Construction/Reconstruction	Yes.
§63.6(a)	Applicability	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources	Yes.
§63.6(b)(5)	Notification	Yes.
§63.6(b)(6)	[Reserved]	

§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Yes.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Yes.
§63.6(c)(3)–(4)	[Reserved]	
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Yes
§63.6(d)	[Reserved]	
§63.6(e)(1)–(2)	Operation & Maintenance	Yes.
§63.6(e)(3)(i), (ii), and (v) through (viii)	Startup, Shutdown, Malfunction Plan (SSMP)	Yes, except information regarding Group 2 emission points and equipment leaks is not required in the SSMP, as specified in §63.2525(j).
§63.6(e)(3)(iii) and (iv)	Recordkeeping and Reporting During SSM	No, §63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and §63.2520(e)(4) specifies reporting requirements.
§63.6(e)(3)(ix)	SSMP incorporation into title V permit	Yes.
§63.6(f)(1)	Compliance Except During SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Yes.
§63.6(h)	Opacity/Visible Emission (VE) Standards	Only for flares for which Method 22 observations are required as part of a flare compliance assessment.
§63.6(i)(1)–(14)	Compliance Extension	Yes.
§63.6(j)	Presidential Compliance Exemption	Yes.
§63.7(a)(1)–(2)	Performance Test Dates	Yes, except substitute 150 days for 180 days.
§63.7(a)(3)	Section 114 Authority	Yes, and this paragraph also applies to flare compliance assessments as specified under §63.997(b)(2).
§63.7(b)(1)	Notification of Performance Test	Yes.
§63.7(b)(2)	Notification of Rescheduling	Yes.
§63.7(c)	Quality Assurance/Test Plan	Yes, except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents.
§63.7(d)	Testing Facilities	Yes.

§63.7(e)(1)	Conditions for Conducting Performance Tests	Yes, except that performance tests for batch process vents must be conducted under worst-case conditions as specified in §63.2460.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Yes.
§63.7(e)(3)	Test Run Duration	Yes.
§63.7(f)	Alternative Test Method	Yes.
§63.7(g)	Performance Test Data Analysis	Yes.
§63.7(h)	Waiver of Tests	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Yes.
§63.8(a)(2)	Performance Specifications	Yes.
§63.8(a)(3)	[Reserved]	
§63.8(a)(4)	Monitoring with Flares	Yes.
§63.8(b)(1)	Monitoring	Yes.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Yes.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Yes.
§63.8(c)(1)(i)	Routine and Predictable SSM	Yes.
§63.8(c)(1)(ii)	SSM not in SSMP	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	Yes.
§63.8(c)(2)–(3)	Monitoring System Installation	Yes.
§63.8(c)(4)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subparts G and SS of part 63. Requirements for COMS do not apply because subpart FFFF does not require continuous opacity monitoring systems (COMS).
§63.8(c)(4)(i)	COMS Measurement and Recording Frequency	No; subpart FFFF does not require COMS.
§63.8(c)(4)(ii)	CEMS Measurement and Recording Frequency	Yes.
§63.8(c)(5)	COMS Minimum Procedures	No. Subpart FFFF does not contain opacity or VE limits.
§63.8(c)(6)	CMS Requirements	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63. Requirements for COMS do not apply because subpart FFFF does not require COMS.
§63.8(c)(7)–(8)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subparts G and SS of part

		63. Requirements for COMS do not apply because subpart FFFF does not require COMS.
§63.8(d)	CMS Quality Control	Only for CEMS.
§63.8(e)	CMS Performance Evaluation	Only for CEMS. Section 63.8(e)(5)(ii) does not apply because subpart FFFF does not require COMS.
§63.8(f)(1)–(5)	Alternative Monitoring Method	Yes, except you may also request approval using the precompliance report.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Only applicable when using CEMS to demonstrate compliance, including the alternative standard in §63.2505.
§63.8(g)(1)–(4)	Data Reduction	Only when using CEMS, including for the alternative standard in §63.2505, except that the requirements for COMS do not apply because subpart FFFF has no opacity or VE limits, and §63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in §63.2450(j).
§63.8(g)(5)	Data Reduction	No. Requirements for CEMS are specified in §63.2450(j). Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.9(a)	Notification Requirements	Yes.
§63.9(b)(1)–(5)	Initial Notifications	Yes.
§63.9(c)	Request for Compliance Extension	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	Yes.
§63.9(e)	Notification of Performance Test	Yes.
§63.9(f)	Notification of VE/Opacity Test	No. Subpart FFFF does not contain opacity or VE limits.
§63.9(g)	Additional Notifications When Using CMS	Only for CEMS. Section 63.9(g)(2) does not apply because subpart FFFF does not require COMS.
63.9(h)(1)–(6)	Notification of Compliance Status	Yes, except subpart FFFF has no opacity or VE limits, and 63.9(h)(2)(i)(A) through (G) and (ii) do not apply because 63.2520(d) specifies the required contents and due date of the notification of compliance status report.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.
§63.9(j)	Change in Previous Information	No, §63.2520(e) specifies reporting requirements for process changes.
§63.10(a)	Recordkeeping/Reporting	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	Yes.

§63.10(b)(2)(i)–(ii), (iv), (v)	Records related to SSM	No, §§63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.
§63.10(b)(2)(iii)	Records related to maintenance of air pollution control equipment	Yes.
§63.10(b)(2)(vi), (x), and (xi)	CMS Records	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.10(b)(2)(vii)–(ix)	Records	Yes.
§63.10(b)(2)(xii)	Records	Yes.
§63.10(b)(2)(xiii)	Records	Only for CEMS.
§63.10(b)(2)(xiv)	Records	Yes.
§63.10(b)(3)	Records	Yes.
§63.10(c)(1)–(6),(9)–(15)	Records	Only for CEMS. Recordkeeping requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.10(c)(7)–(8)	Records	No. Recordkeeping requirements are specified in §63.2525.
§63.10(d)(1)	General Reporting Requirements	Yes.
§63.10(d)(2)	Report of Performance Test Results	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	No. Subpart FFFF does not contain opacity or VE limits.
§63.10(d)(4)	Progress Reports	Yes.
§63.10(d)(5)(i)	Periodic Startup, Shutdown, and Malfunction Reports	No, §63.2520(e)(4) and (5) specify the SSM reporting requirements.
§63.10(d)(5)(ii)	Immediate SSM Reports	No.
§63.10(e)(1)	Additional CEMS Reports	Yes.
§63.10(e)(2)(i)	Additional CMS Reports	Only for CEMS.
§63.10(e)(2)(ii)	Additional COMS Reports	No. Subpart FFFF does not require COMS.
§63.10(e)(3)	Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(i)–(iii)	Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(vi)–	Excess Emissions Report and	No. Reporting requirements are specified in

(viii)	Summary Report	§63.2520.
§63.10(e)(4)	Reporting COMS data	No. Subpart FFFF does not contain opacity or VE limits.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes.
§63.11	Flares	Yes.
§63.12	Delegation	Yes.
§63.13	Addresses	Yes.
§63.14	Incorporation by Reference	Yes.
§63.15	Availability of Information	Yes.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38561, July 1, 2005; 71 FR 20463, Apr. 20, 2006; 71 FR 40341, July 14, 2006]

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005

Check either Natural Gas Only or Alternate Fuel Burned:

Unit	Natural Gas Only	Alternate Fuel Burned	Dates of Alternate Fuel Usage
CRN-0115-03-23-GG12			
CRN-0128-03-17-W25			
CRN-0150-01-17-CC23			
CRN-0150-03-17-CC23			
CRN-0199-01-23-JJ14			
CRN-0199-02-23-JJ14			
CRN-2737-01-12-M41			
CRN-2737-02-12-M41			
CRN-2737-03-12-M41			
CRN-2523-01-9-K18			
CRN-2523-02-9-K18			

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005
Facility: The Bomb Finishing Line and the Projectile Renovation Operations (CRN-2728-01-12-N42, CRN-2728-02-12-N42, CRN-2728-03-12-N42)
Parameter: VOC emissions
Limit: The total VOC emissions from the Bomb Refinishing Line and the Projectile Renovation Operations shall be limited to less than 40 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This month	Previous 11 months	12 months total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005
Facility: Contained Detonation Chamber
Parameter: Net Explosive Weight (NEW) input
Limit: The input of NEW to the Contained Detonation Chamber shall be less than 1,700 tons per consecutive twelve (12) month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-7341-00005
Facility: Open Burning/Open Detonation Operations
Parameter: Type and amount of waste materials open burned or open detonated
Limit: see tables below

Months: _____ YEAR: _____

(1) Ammunition Burning Grounds (ABG)

Unit Number	Material	Limited Treatment Quantity (NEW)	
		8-hour Period (pounds)	Quarterly Period (tons)
3a-ABG	Propellants	75,000	3,412.5
3b-ABG	Explosives	25,000	1,137.5
3c-ABG	Production Scrap	75,000	3,412.5
6-ABG	Red Phosphorous	1,600	72.8
7-ABG	Pyrotechnics	200	9.1
8-ABG	Black Powder Slurry	250	11.4
10-ABG	Contaminated Sludges	2,000	91.0
11-ABG	Red Phosphorous Sludge	200	9.1
12-ABG	Explosives/Propellants/ Pyrotechnics	300	13.7
13-ABG	Explosives/Pyrotechnics	50,000	2,275.0
4-ABG	Flammable Liquids/Explosives	200	9.1
5-ABG	Flammable liquids contaminated with reactive materials	300	13.7
9-ABG	Contaminated Waste Materials	400	18.2

(2) Old Rifle Range (ORR)

Unit Number	Material	Limited Treatment Quantity (NEW)	
		8-hour Period (pounds)	Quarterly Period (tons)
3a-ORR	Yellow D	6,000	273.0
3b-ORR	Projectile Bodies and Yellow D contaminated materials	9,000	409.5

(3) Demolition Range

Unit Number	Material	Limited Treatment Quantity (NEW)		Actual Usage
		24-hour Period (pounds)	Quarterly Period (tons)	(tons)
3-DR	Explosives	55,000	2502.5	

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005
Facility: Generator for the Mobile Plasma Treatment System
Parameter: Gallons of diesel fuel
Limit: Diesel fuel usage for the Mobile Plasma Treatment System Generator shall not exceed 89,604 gallons per consecutive twelve (12) month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005
Facility: APE 1236 Rotary Kiln Incinerator (P03)
Parameter: Net explosive weight (NEW) input
Limit: The input of NEW to the APE 1236 Rotary Kiln Incinerator (P03) shall be less than 347 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This month	Previous 11 months	12 months total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005
Facility: Flare Manufacturing Processes in Buildings 2504 and 145
Parameter: Number of batches
Limit: The total number of batches shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month.
Equation: Each batch shall not exceed 60 pounds.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This month	Previous 11 months	12 months total
Month 1			
Month 2			
Month 3			

☐ All batches were less than or equal to 60 pounds

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

Part 70 Quarterly Report

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005
Facility: Flare Manufacturing Process in Building 198
Parameter: Number of batches
Limit: The total number of batches shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month.
Equation: Each batch shall not exceed 60 pounds.

QUARTER: _____YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This month	Previous 11 months	12 months total
Month 1			
Month 2			
Month 3			

☐ All batches were less than or equal to 60 pounds

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Crane Division, Naval Surface Warfare Center (NSWC Crane)
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: Code 0592, Building 3260, 300 Highway 361, Crane, IN 47522-5001
Part 70 Permit No.: T101-21308-00005

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Name:	Crane Division, Naval Surface Warfare Center
Source Location:	300 Highway 361, Crane, IN, 47522
County:	Martin
SIC Code:	9711 and 3483
Permit Renewal No.:	T101-21308-00005
Permit Reviewer:	Timothy R. Pettifor

On October 1, 2008, the Office of Air Quality (OAQ) had a notice published in the Shoals News, Shoals, Indiana, stating that Crane Division, Naval Surface Warfare Center had applied for a Part 70 Operating Permit renewal to continue to operate a military base where ammunition, rockets, and other military ordnance are manufactured, stored, and disposed. The notice also stated that OAQ proposed to issue a Part 70 Operating Permit renewal for this operation and provided information on how the public could review the proposed Part 70 Operating Permit renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Part 70 Operating Permit renewal should be issued as proposed.

On October 30, 2008, Kimberly Paurazas of SAIC submitted comments on the proposed Part 70 Operating Permit renewal. The comments are as follows: the permit language if changed, has deleted language as ~~strikeouts~~ and the new language **bolded**.

Comment 1: Sections A.2 and D.2; Conditions A.2 (b) (1), A.2 (b) (2), A.2 (b) (19), A.2 (b) (22), D.2.1 and D.2.2

The Cleaver Brooks boiler listed in A.2 (b) (1), identified as CRN-0115-01-23-GG12 was replaced after the 40 CFR 60, Subpart Dc applicability date of June 9, 1989 and therefore, is applicable to the NSPS. The construction date should be 1997 rather than 1977. In addition, the boilers in A.2 (b) (2) and A.2 (b) (22) have been reversed in the associated boiler number and maximum capacity from previous permit applications. Crane would like to take the opportunity in this renewal permit to update appropriately. The boiler in A.2 (b) (2) has a maximum capacity of 6.2 MMBtu/hr and 40 CFR 60, Subpart Dc is not applicable. The boiler in A.2 (b) (22) has a maximum capacity of 16.75 and was constructed in 1997. Therefore, 40 CFR 60, Subpart Dc is applicable to this boiler. The information provided in previous permits was not correct. The boiler in A.2 (b) (19) was replaced with the new boiler in subsection (20) of this section. Please revise as follows: "Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S". Please update the emission unit descriptions in Section D.2. Also, since boilers CRN-0115-01 and CRN-0115-02 were constructed in 1997 please remove them from D.2.1 and add them to D.2.2.

Response 1:

Condition A.2 has been revised. The emission unit descriptions in Section D.2 have also been updated and the tables in D.2.1 and D.2.2 have been revised. In addition, the boilers in A.2 (b) (1) and A.2 (b) (22) have been added to Section E.3.

(b) Thirty-three (33) boilers, consisting of:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in ~~1977~~ **1997**, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-01-23-GG12 is considered an affected facility.

...

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of ~~16.75~~ **6.2** MMBtu/hr, and exhausting to stack CRN-0115-03-23-GG12-S.

...

(19) ~~Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 MMBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.~~
Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

...

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in ~~1977~~ **1997**, with a maximum capacity of ~~6.2~~ **16.75** MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-02-23-GG12 is considered an affected facility.

...

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Unit Description

(b) Thirty-three (33) boilers, consisting of:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in ~~1977~~ **1997**, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-01-23-GG12 is considered an affected facility.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of ~~16.75~~ **6.2** MMBtu/hr, and exhausting to stack CRN-0115-

03-23-GG12-S.

...

(19) ~~Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 MMBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.~~ **Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.**

...

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in ~~1977~~ **1997**, with a maximum capacity of ~~6.2~~ **16.75** MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-02-23-GG12 is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.2.1 Particulate Matter Emissions Limitations [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the boilers which were existing and in operation or which received permits to construct prior to September 21, 1983, shall not exceed 0.05 pounds per million Btu heat input (lb/MMBtu).

Unit ID	Building Location	Heat Input Capacity (MMBtu/hr)
~~CRN-0115-01-23-GG12~~	~~Building 115~~	~~16.75~~
~~CRN-0115-02-23-GG12~~	~~Building 115~~	~~6.20~~
...	...	...

D.2.2 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the boilers listed below, receiving permits to construct after September 21, 1983, shall not exceed the following (in pound per million Btu heat input (lb/MMBtu) for each boiler):

Unit ID	Building Location	Installation Date	Pt (lb/MMBtu)
CRN-0115-01-23-GG12	**Building 115**	**1997**	**0.18**
CRN-0115-02-23-GG12	**Building 115**	**1997**	**0.18**

...

SECTION E.3 FACILITY OPERATION CONDITIONS

Emission Unit Description
(b) Boilers:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in ~~1977~~ **1997**, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-01-23-GG12 is considered an affected facility.

...

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in ~~1977~~ **1997**, with a maximum capacity of ~~6.2~~ **16.75** MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

Under NSPS, Subpart Dc, Boiler CRN-0115-02-23-GG12 is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]

E.3.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for the four (4) natural gas and/or fuel oil fired boilers (CRN-0128-01-17-W25, CRN-0128-03-17-W25, ~~CRN-0150-01-17-CC23~~ **CRN-0115-01-23-GG12**, and ~~CRN-0150-03-17-CC23~~ **CRN-0115-02-23-GG12**) as specified in Appendix A of 40 CFR Part 60, in accordance with the schedule in 40 CFR Part 60, Subpart Dc.

Comment 4: Section A.2, Condition A.2 (d) (1)-(24)

The paint booths exhaust to stacks. The stacks are not numbered. Please revise each of the references to the same unit ID as the paint booth and add an "S" to the end of the ID (for example, CRN-0104-01-23-HH16 exhausting to stack CRN-0104-01-23-HH16-S).

Response 4:

The paint booth descriptions in Section A.2 and D.4 have been revised.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

...

(d) Twenty-six (26) paint booths, consisting of:

(1) CRN-0104-01-23-HH16, exhausting to ~~vent~~ **stack CRN-0104-01-23-**HH16**-S**, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, exhausting to ~~vent~~ **stack CRN-0104-02-23-**HH16**-S**, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(3) CRN-0107-01-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-01-23-**HH13**-S**, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(4) CRN-0107-02-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-02-23-**HH13**-S**, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-03-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-03-23-**HH13**-S**, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(6) CRN-0107-04-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-04-23-**HH13**-S**, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(7) CRN-0136-01-17-Z26, exhausting to ~~vent~~ **stack CRN-0136-01-17-**Z26**-S**, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(8) CRN-0155-02-17-BB25, exhausting to ~~vent~~ **stack CRN-0155-02-17-**BB25**-S**, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(9) CRN-0155-03-17-BB25, exhausting to ~~vent~~ **stack CRN-0155-03-17-**BB25**-S**, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(10) CRN-0169-01-24-EE22, exhausting to ~~vent~~ **stack CRN-0169-01-24-**EE22**-S**, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(11) CRN-2520-01-17-Y26, exhausting to ~~vent~~ **stack CRN-2520-01-17-**Y26**-S**, located in Building 2520, constructed in 1968, using a dry filter to control particulate matter emissions.

(12) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, exhausting to ~~vent~~ **stack CRN-2728-01-12-**N42**-S**, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, exhausting to ~~vent~~ **stack CRN-2728-02-12-**N42**-S**, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, exhausting to ~~vent~~ **stack CRN-2728-03-12-**N42**-S**, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(13) CRN-3234-09-17-U26, exhausting to ~~vent~~ **stack CRN-3234-09-17-**U26**-S**, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(14) CRN-3234-10-17-U26, exhausting to ~~vent~~ **stack CRN-3234-10-17-**U26**-S**, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(15) CRN-3234-15-17-U26, exhausting to ~~vent~~ **stack CRN-3234-15-17-**U26**-S**, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(16) CRN-0198-01-23-II15, exhausting to ~~vent~~ **stack CRN-0198-01-23-**II15**-S**, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(17) CRN-0227-01-23-HH12, exhausting to ~~vent~~ **stack CRN-0227-01-23-**HH12**-S**, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(18) CRN-0227-02-23-HH12, exhausting to ~~vent~~ **stack CRN-0227-02-23-**HH12**-S**, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(19) CRN-2697-01-17-W24, exhausting to ~~vent~~ **stack CRN-2697-01-17-**W24**-S**, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions..

(20) CRN-2805-02-23-GG19, exhausting to ~~vent~~ **stack CRN-2805-02-23-**GG19**-S**, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(21) CRN-2805-03-23-GG19, exhausting to ~~vent~~ **stack CRN-2805-03-23-**GG19**-S**, located in Building 2805, constructed in 2006, using a dry filter to control particulate matter emissions.

(22) CRN-3168-02-17-V28, exhausting to ~~vent~~ **stack CRN-3168-02-17-**V28**-S**, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

...

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Unit Description

(d) Twenty-six (26) paint booths, consisting of:

(1) CRN-0104-01-23-HH16, exhausting to ~~vent~~ **stack CRN-0104-01-23-**HH16**-S**, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, exhausting to ~~vent~~ **stack CRN-0104-02-23-**HH16**-S**, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(3) CRN-0107-01-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-01-23-**HH13**-S**, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(4) CRN-0107-02-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-02-23-**HH13**-S**, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-03-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-03-23-**HH13**-S**, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(6) CRN-0107-04-23-HH13, exhausting to ~~vent~~ **stack CRN-0107-04-23-**HH13**-S**, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(7) CRN-0136-01-17-Z26, exhausting to ~~vent~~ **stack CRN-0136-01-17-**Z26**-S**, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(8) CRN-0155-02-17-BB25, exhausting to ~~vent~~ **stack CRN-0155-02-17-**BB25**-S**, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(9) CRN-0155-03-17-BB25, exhausting to ~~vent~~ **stack CRN-0155-03-17-**BB25**-S**, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(10) CRN-0169-01-24-EE22, exhausting to ~~vent~~ **stack CRN-0169-01-24-**EE22**-S**, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(11) CRN-2520-01-17-Y26, exhausting to ~~vent~~ **stack CRN-2520-01-17-**Y26**-S**, located in Building 2520, constructed in 1968, using a dry filter to control particulate matter emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

...

SECTION D.4 FACILITY OPERATION CONDITIONS (Continued)

Emission Unit Description

(12) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, exhausting to ~~vent~~ **stack CRN-2728-01-12-**N42**-S**, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, exhausting to ~~vent~~ **stack CRN-2728-02-12-**N42**-S**, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, exhausting to ~~vent~~ **stack CRN-2728-03-12-**N42**-S**, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(13) CRN-3234-09-17-U26, exhausting to ~~vent~~ **stack CRN-3234-09-17-**U26**-S**, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(14) CRN-3234-10-17-U26, exhausting to ~~vent~~ **stack CRN-3234-10-17-**U26**-S**, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(15) CRN-3234-15-17-U26, exhausting to ~~vent~~ **stack CRN-3234-15-17-**U26**-S**, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(16) CRN-0198-01-23-II15, exhausting to ~~vent~~ **stack CRN-0198-01-23-**II15**-S**, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(17) CRN-0227-01-23-HH12, exhausting to ~~vent~~ **stack CRN-0227-01-23-**HH12**-S**, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(18) CRN-0227-02-23-HH12, exhausting to ~~vent~~ **stack CRN-0227-02-23-**HH12**-S**, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(19) CRN-2697-01-17-W24, exhausting to ~~vent~~ **stack CRN-2697-01-17-**W24**-S**, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions.

(20) CRN-2805-02-23-GG19, exhausting to ~~vent~~ **stack CRN-2805-02-23-**GG19**-S**, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.4 FACILITY OPERATION CONDITIONS (Continued)

Emission Unit Description

(21) CRN-2805-03-23-GG19, exhausting to ~~vent~~ **stack CRN-2805-03-23-**GG19**-S**, located in Building 2805, constructed in 2006, using a dry filter to control particulate matter emissions.

(22) CRN-3168-02-17-V28, exhausting to ~~vent~~ **stack CRN-3168-02-17-**V28**-S**, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

...

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 5 Sections A.2 and D.10, Conditions A.2 (j) (2)

Building 3235 has ten test cells that exhaust to the vertical packed-bed tower (scrubber).

Response 5:

The emission unit descriptions in Sections A.2 and D.10 have been revised.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

...

(j) Testing of fuses, boosters, other explosive devices and dissection of batteries, consisting of:

...

(2) ~~One (1)~~ **Ten (10)** test cell**s** in Building 3235, constructed in 1991, used to test lithium batteries, with a maximum throughput of 149 batteries per year, using a vertical packed-bed tower to control particulate matter emissions.

...

SECTION D.10 FACILITY OPERATION CONDITIONS

Emission Unit Description

(j) Testing of fuses, boosters, other explosive devices and dissection of batteries, consisting of:

...

(2) ~~One (1)~~ **Ten (10)** test cell**s** in Building 3235, constructed in 1991, used to test lithium batteries, with a maximum throughput of 149 batteries per year, using a vertical packed-bed tower to control particulate matter emissions.

...

...

D.10.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

...

Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
Testing of Fuses, Boosters and Other Explosive Devices (Containment Chamber in Building 2167)	< 0.05	< 0.551
Testing of Fuses, Boosters and Other Explosive Devices (Test Cell**s** in Building 3235)	< 0.05	< 0.551
Testing of Fuses, Boosters and Other Explosive Devices (Containment Chamber in Building 142)	< 0.05	< 0.551
Testing of Fuses, Boosters and Other Explosive Devices (Flare Testing in Buildings 2869 and 366)	< 0.05	< 0.551

...

Comment 6: Sections A.2, Conditions A.2 (l) and (n)

Please change the location of the mobile plasma treatment system (MPTS) from "near building 69" to "Building 3345". Please also add "located in Building 3343" to the description of the APE 1236 rotary kiln incinerator in Section A.2 (n).

Response 6:

IDEM agrees to the change. The emission unit descriptions in Sections D.14 and E.2 have also been updated.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

...

(l) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, located ~~near Building 69~~ **in Building 3345**, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

...

(n) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, **located in Building 3343,** used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

...

SECTION D.14 FACILITY OPERATION CONDITIONS

Emission Unit Description
(l) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, located ~~at~~ **in** Building ~~3345~~ , with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.
...

...

SECTION E.2 FACILITY OPERATION CONDITIONS

Emission Unit Description
(m) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, ~~located near Building 69~~ **in Building 3345**, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse. Under NESHAP, Subpart EEE, the mobile plasma treatment system (MPTS) (P02) is considered a new affected facility.
(o) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, **located in Building 3343,** used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03. Under NESHAP, Subpart EEE, the APE 1236 rotary kiln incinerator (P03) is considered a new affected facility.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 7: Sections A.3 and D.12, Conditions A.3 (a), A.3 (b) (2) (i) and D.12.2

Please add the following boiler to the list of insignificant boilers in Condition A.3 (a) "One (1) 3.75 MMBtu/hr natural gas/#2 fuel oil boiler, identified as CRN-0199-03-23-JJ14, constructed in 2008 and located in Building 199". A natural gas boiler with a maximum heat input of 1.6 MMBtu/hr will be installed Building 3291 and another natural gas boiler with a maximum heat input of 1.2 MMBtu/hr will be installed in Building 3330C. These boilers will be installed in 2008. Please update A.3 (b) (2) (i) accordingly. Please also update

the table in Condition in D.12.2 to include the addition of the insignificant boilers in Building 3291 and 3330C.

Response 7:

The list of insignificant boilers in Conditions A.3 (a) and A.3 (b) have been updated. The table in Condition D.12.2 and the emission unit descriptions have been updated. In addition, the boiler identified as CRN-0199-03-23-JJ14 has been added to Section D.11.

(a) Fuel oil-fired combustion sources with heat inputs less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight:

...

(2) One (1) 3.75 MMBtu/hr natural gas/#2 fuel oil boiler, identified as CRN-0199-03-23-JJ14, constructed in 2008 and located in Building 199 [326 IAC 6-2-4].

(b) Natural gas-fired combustion sources with inputs less than ten million (10,000,000) Btu per hour, identified as:

...

(2) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 5, 7, 8, 10, 34, 36, 40, 47,66, 74, 77, 105, 128, 180, 363, 365, 366, 966, 1141, 1149, 2036, 2045,2084, 2518, 2521,2692, 2694, 2807, 2902, 2963, 2995, 3149, 3173, 3188, 3233, 3234, 3235, 3239, 3243, 3250, 3284, ~~3291~~, 3319, 3324, 3325, ~~3330C~~, 3333, 3334, 3339, 3348, 3422 [326 IAC 6-2-4]

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906, 3168, 3285, **3330C,** ~~3291~~, 3373, 3395 [326 IAC 6-2-4]

(iii) three boilers in each of the following buildings: 3287 **and 3291**[326 IAC 6-2-4]

(iv) four boilers in each of the following buildings: 3241, 3251, 3330N, 3330S [326 IAC 6-2-4]

...

SECTION D.11 FACILITY OPERATION CONDITIONS

Emission Unit Description

Insignificant Activities:

(a) Fuel oil-fired combustion sources with heat input less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.

(1) Two (2) 1.3 MMBtu/hr natural gas/fuel oil-fired boilers, identified as Cleaver Brooks CRN-0180-01-17-W22 and CRN-0180-02-17-W22, constructed in 1999, located in Building 180. [326 IAC 6-2-4]

(2) One (1) 3.75 MMBtu/hr natural gas/#2 fuel oil boiler, identified as CRN-0199-03-23-JJ14, constructed in 2008 and located in Building 199 [326 IAC 6-2-4].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.11.1 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emissions for Sources of Indirect Heating):

(a) particulate (PM) emissions from the two (2) 1.3 MMBtu/hr fuel-oil fired boilers, **and the 3.75 MMBtu/hr boiler, all** constructed after September 21, 1983 and located in Building**s** 180 **and 199**, shall not exceed 0.18 pound per million Btu heat input (lb/MMBtu) each.

…

SECTION D.12 FACILITY OPERATION CONDITIONS

Emission Unit Description

Insignificant Activities:

(b) Natural gas-fired combustion sources with inputs less than ten million (10,000,000) Btu per hour, identified as:

...

(2) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 5, 7, 8, 10, 34, 36, 40, 47, 66, 74, 77, 105, 128, 180, 363, 365, 366, 966, 1141, 1149, 2036, 2045, 2084, 2518, 2521, 2692, 2694, 2807, 2902, 2963, 2995, 3149, 3173, 3188, 3233, 3234, 3235, 3239, 3243, 3250, 3284, ~~3291,~~ 3319, 3324, 3325, 3330C, 3333, 3334, 3339, 3348, 3422 [326 IAC 6-2-4]

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906, 3168, 3285, **3330C**, ~~3291,~~ 3373, 3395 [326 IAC 6-2-4]

(iii) three boilers in each of the following buildings: 3287 **and 3291** [326 IAC 6-2-4]

(iv) four boilers in each of the following buildings: 3241, 3251, 3330N, 3330S [326 IAC 6-2-4]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

...

D.12.2 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Source of Indirect Heating), particulate (PM) emissions from the boilers listed in subsection (2) above, which were constructed after September 21, 1983, shall not exceed the following (in pounds per million Btu heat input (lb/MMBtu) for each boiler).

Building Location	Installation Date	Pt (lb/MMBtu)
...	...	...
3291, 3330C	**2008**	**0.18**

Comment 8: Section A.3, Condition A.3 (ff)

The equipment in A.3 (ff) (10), (16), (17), (21), (23), (26), (29),(31), (34), and (41) no longer exists. Please remove this equipment from the list of insignificant activities in A.3 (ff) and renumber the rest. Please also add "in Building 1884" behind "Passivation process" in A.3 (ff) (28). In addition, the number of above ground storage tanks currently located at NSWC Crane is 50; the number of underground storage tanks is 29.

Response 8:

Condition A.3 (ff) has been revised.

(ff) Activities with emissions equal to or less than thresholds:

...

~~(10) Explosives removal (Steam-out and Autoclave), located in Building 160;~~

...

~~(16) Hood, vent, located in Building 174;~~

~~(17) Hood, vent, located in Building 226~~;

...

~~(21) Mold release unit, located in 226;~~

...

~~(23) Curing oven, located in Building 226;~~

...

~~(26) Paint booth, located in Building 2044;~~

...

~~(29) PDL Foam, located in Building 2698~~;

...

~~(31) Quench tank, located in Building 125;~~

...

~~(34) Solvent System, located in Building 226;~~

...

~~(41) Vapor carbon fluid, located in Building 125;~~

...

Comment 9: Section D.2, Conditions D.2.7 (b), D.2.8 (a), and D.2.8 (b)

The reference to Condition D.2.7 in the first sentence of Condition D.2.7 is incorrect. In addition the reference to Condition D.2.4 at the end of the first sentence in D.2.8 (a) and the reference to Condition D.2.6 in the first sentence of D.2.8 (b) are incorrect. Please correct all of these references.

Response 9:

The references in Conditions D.2.7 and D.2.8 have been corrected.

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition ~~D.2.4~~**D.2.3**, the Permittee shall maintain records in accordance with (1) through (6) below.

...

(b) To document compliance with Condition ~~D.2.7~~ **D.2.6**, the Permittee shall maintain a daily record of visible emission notations of the boiler stack exhausts when combusting fuel oil only. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

D.2.8 Reporting Requirements

(a) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirement, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported for the boilers listed in Condition ~~D.2.4~~ **D.2.3**. The natural gas-fired boiler certification does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A semi-annual summary of the information to document compliance with Condition ~~D.2.6~~ **D.2.3** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Comment 10: Section D.4

If there are no emission standards/limitations or compliance monitoring requirements associated with the paint booths CRN-0198-0-1-23-II15 and CRN-3168-02-17-V28, should they be listed in Sections A.2 and D.4 or should they be listed in Section A.3?

Response 10:

The potential VOC emissions of each paint booth is greater than 15 pounds per day. Therefore, these units would be considered significant and will remain in Section A.2 and D.4.

Comment 11: Section D.4, Condition D.4.8(a).

Since there is only one paint booth with a water wall, please change "water walls" to "water wall" and remove "and wet walls".

Response 11:

IDEM agrees to the change.

D.4.8 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28). Daily inspections shall be performed for the water wall~~s~~ to verify the level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating

material that reduces the capture efficiency of the water wall~~s and wet walls~~. To monitor the performance of the water wall~~s and wet walls~~ and the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28). If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Comment 12: Section D.4, Conditions D.4.9 (a), D.4.9 (b), and D.4.10

The reference to Condition D.4.1(a) is incorrect. Please remove the (a) from the references in D.4.9 (a) and D.4.10. The second sentence in D.4.9 (a) and D.4.9 (b) should read " (1) through (5)" rather than " (1) through (6)".

Response 12:

The references in Conditions D.4.9 and D.4.10 have been revised.

D.4.9 Record Keeping Requirements

(a) To document compliance with Conditions D.4.1~~(a)~~ and D.4.2, the Permittee shall maintain records in accordance with (1) through ~~(6)~~ **(5)** below. Records maintained for (1) through ~~(6)~~ **(5)** shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1~~(a)~~ and D.4.2.

...

(b) To document compliance with Condition D.4.3, the Permittee shall maintain records in accordance with (1) through ~~(6)~~ **(5)** below. Records maintained for (1) through ~~(6)~~ **(5)** shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.3.

...

D.4.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.1~~(a)~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Comment 13: Section D.5, Conditions D.5.1 (d) (1) and D.5.1 (d) (2)

Please remove the added row in each of these tables.

Response 13:

The extra rows have been deleted. The quaterly reporting form at the end of the permit has also been corrected.

(d) The Permittee shall not exceed the material quantities as follows:

(1) Ammunition Burning Grounds (ABG)

Unit Number	Material	Limited Treatment Quantity (NEW)	
		8-hour Period (pounds)	Quarterly Period (tons)
...	...	...	...
~~Unit Number~~	~~Material~~	~~Limited Treatment Quantity (NEW)~~	
		~~24-hour Period (pounds)~~	~~Quarterly Period (tons)~~
...	...	...	...

(2) Old Rifle Range (ORR)

Unit Number	Material	Limited Treatment Quantity (NEW)	
		8-hour Period (pounds)	Quarterly Period (tons)
...	...	...	...
~~Unit Number~~	~~Material~~	~~Limited Treatment Quantity (NEW)~~	
		~~24-hour Period (pounds)~~	~~Quarterly Period (tons)~~
...	...	...	...

...

Comment 14: Section D.5, Conditions D.5.2 (a) and D.5.3 (b)

The reference to D.5.1 in these paragraphs should be changed to D.5.1 (d). Additionally, the "type and amount of wasted burned" and "all materials open burned and open detonated" is the same. Please change D.5.3 to "To document compliance with Condition D.5.1 (d), the Permittee shall submit a quaterly report detailing all materials open burned and open detonated using the report form located at the end of this permit, or their equivalent.

Response 14:

Conditions D.5.2 (a) and D.5.3 (b) have been revised.

D.5.2 Record Keeping Requirements

(a) To document compliance with Condition D.5.1**(d)**, the Permittee shall maintain records detailing the type and amount of waste treated and records of all materials open burned and open detonated.

...

D.5.3 Reporting Requirements

(a) To document compliance with Condition D.5.1**(d)**, the Permittee shall submit a quarterly report detailing ~~the type and amount of waste burned and~~ all materials open burned and open detonated **using the report form located at the end of this permit, or their equivalent**.

Comment 15: Sections D.13 and D.14, Conditions D. 13.1 (a)-(d) and D.14.1 (c)

Please replace the word "utilized" with the word "treated" in these paragraphs.

Response 15:

The word "utilized" has been replaced with the word "treated" In Conditions D.13.1 and D.14.1 (c).

D.13.1 PSD Minor Limits [326 IAC 2-2]

...

(b) The carbon monoxide (CO) emissions from the Contained Detonation Chamber shall not exceed 0.0568 pounds of CO per pound of net explosive weight (NEW) ~~utilized~~ **treated**.

(c) The nitrogen oxide (NOx) emissions from the Contained Detonation Chamber shall not exceed 0.0085 pounds of NOx per pound of net explosive weight (NEW) ~~utilized~~ **treated**.

(d) The particulate matter (PM) emissions from the Contained Detonation Chamber shall not exceed 0.0003 pounds of PM per pound of net explosive weight (NEW) ~~utilized~~ **treated**.

(e) The particulate matter, with a diameter of less than 10 micrometers (PM-10), emissions from the Contained Detonation Chamber shall not exceed 0.0003 pounds of PM-10 per pound of net explosive weight (NEW) ~~utilized~~ **treated**.

...

D.14.1 PSD Minor Limits [326 IAC 2-2]

...

(c) Baghouse C07 and Cyclone C05, for the APE 1236 incinerator (P03), shall be in operation at all times that the APE 1236 incinerator (P03) is in operation. The particulate matter (PM and PM-10) emissions from baghouse C07 shall not exceed 2.017 pounds per ton of net explosive weight (NEW) ~~utilized~~ **treated**.

...

Comment 16: Section D.13, Condition D.13.3

Please change "based on" to "of" in this paragraph.

Response 16:

Condition D.13.3 has been revised.

D.13.3 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate (PM) emissions from the contained detonation chamber shall not exceed 2.13 pounds per hour when operating at a process weight rate of 750 pounds per hour ~~based on~~ **of** net explosive weight.

Comment 17: Section D.14, Condition D.14.6 (d).

Section C - Performance Testing requires that a final test report be submitted within 45 days following the end of testing, however, 40 FR 63, Subpart EEE allows 90 days, as the Comprehensive Performance Test Report takes longer to prepare than 45 days.

Response 17:

326 IAC 3-6-4 (b) states, "All emission test reports must be received by the department not later than forty-five (45) days after the completion of the testing. An extension may be granted by the department by the department if the source submits to the department a reasonable written explanation for the requested extension not later than five (5) days prior to the end of the initial forty-five (45) day period". Therefore Crane Division, Naval Surface Warfare Center, may request an extension and be granted more than forty-five days to prepare the test report. No changes to the permit have been made as a result of this comment.

Comment 18: Section D.14, Conditions D.14.1 (a), D.14.8

Condition D.14.1 (a) does not include a limit on the number of hours for the MPTS. It must have been inadvertently removed, as the Recordkeeping condition, D.14.8 (b) requires recording the number of hours.

There is also no Visible Emissions Notation condition. Condition D.14.8 (e) requires records be maintained for daily VE notations.

Response 18:

Upon further review, IDEM does not believe it is necessary to record both the hours of operation and the amount of fuel used in the diesel generation. In addition, Visible Emission Notations are not warranted since Condition D.14.7 requires a CEMS be installed, calibrated, maintained and continuously operated for the MPTS and the APE 1236 incinerator. Therefore, Condition D.14.8 has been revised.

D.14.8 Record Keeping Requirements

(a) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

~~(b) To document compliance with Condition D.14.1(a)(1), the Permittee shall maintain records of the hours of operation of the MPTS.~~

~~(c)~~ **(b)** To document compliance with Condition D.14.1(a)(1), the Permittee shall maintain records of the fuel usage of the MPTS generator.

~~(d)~~ **(c)** To document compliance with Condition D.14.1(b), the Permittee shall maintain records of the total amount of the Net Explosive Weight (NEW) of the materials fed to the APE 1236 incinerator (P03) each month.

~~(e) To document compliance with Condition D.14.7, the Permittee shall maintain a daily record of visible emission notations of the MPTS (P02) and the APE 1236 incinerator (P03) baghouse stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).~~

~~(f)~~**(d)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 19: Section D.15

There is no condition added for 40 CFR 63, Subpart FFF. Please add a conditon stating: "The Permittee shall comply with the applicable requirements of 40 CFR 63, Subpart FFFF in Condition E.4.2 for the flare manufacturing operations in Buildings 2504, 145 and 198.

Response 19:

Condition D.15.3 has been added to the permit, and the subsequent conditions in Section D.15 have been renumbered. The Table of Contents has also been updated.

D.15.3 Miscellaneous Organic Chemical Manufacturing NESHAP [40 CFR Part 63, Subpart FFFF]

The Permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF in Condition E.4.2 for the flare manufacturing operations in Buildings 2504, 145 and 198.

Comment 20: Entire Permit

In cases where an apostrophe (') or quotation marks ("") should be used, the printed version shows a question mark (?).

Response 20:

This computer problem has been corrected and the printed copy now matches the electronic version.

Comment 21: TSD, Page 16

A clarification is needed for the infomation in the section entitled, "Emission Units and Pollution Control Equipment Removed from the Source". The scrubbers associated with the process (autoclaves and belt flaker) in Building 160 were not removed, however, they are not located in the same building. They are located in an adjacent building. This section implies the scrubbers are located in Building 160. This comment may not warrant a change, as there is no change necessary in the actual permit.

Response 22:

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result, ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Crane Division, Naval Surface Warfare Center
Source Location:	300 Highway 361, Crane, IN, 47522
County:	Martin
SIC Code:	9711 and 3483
Permit Renewal No.:	T101-21308-00005
Permit Reviewer:	Timothy R. Pettifor

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Crane Division, Naval Surface Warfare Center, relating to the operation of a military base where ammunition, rockets, and other military ordnance are manufactured, stored, and disposed.

History

On June 16, 2005, Crane Division, Naval Surface Warfare Center, submitted an application to the OAQ requesting to renew its operating permit. Crane Division, Naval Surface Warfare Center, was issued a Part 70 Operating Permit (No.: T101-7341-00005) on May 15, 2001.

Permitted Emission Units and Pollution Control Equipment

This stationary source consists of the following emission units and pollution control devices:

(a) Thirteen (13) abrasive blasting units, consisting of:

(1) CRN-0104-03-23-HH16, located in Building 104, replaced with previously-identified CRN-2171-01-17-DD22 in 2007, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0104-03-23-HH16-S.

(2) CRN-0106-02-23-HH13, located in Building 106, constructed in 1988, with a maximum capacity of 3,000 lbs/yr (1.5 TPY) abrasive used, using a baghouse with no identification to control particulate matter emissions, and exhausting to stacks CRN-0106-02-23-HH13-S1, S2.

(3) CRN-2521-07-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-2521-07-02-J17-S.

(4) CRN-2521-08-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emission, and exhausting to stack CRN-2521-08-02-J17-S.

(5) CRN-2521-09-2-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter

system with no identification to control particulate matter emissions, and exhausting to stack CRN-2521-09-2-J17-S.

(6) CRN-3234-14-17-U26, located in Building 3234, constructed in 1993, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-3234-14-17-U26-S.

(7) CRN-0227-03-23-HH12, located in Building 227, constructed before 1991, with a maximum capacity of 3,000 lbs/yr (1.5 TPY) abrasive used, using baghouse with no identification to control particulate matter emissions, and exhausting to stack CRN-0227-03-23-HH12-S.

(8) CRN-3168-03-17-V28, located in Building 3168, constructed in 1988, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-3168-03-17-V28-S.

(9) CRN-0041-06-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(10) CRN-0041-07-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system with no identification to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(11) CRN-0041-08-17-V25, located in Building 41, originally constructed in 1993 and modified in 2006, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-0041-06,07,08-17-V25-S.

(12) One (1) barrel blast system, located in Building 107, identified as CRN-0107-06-23-HH13, constructed in 2005, with a maximum throughput rate of 960 pounds of steel parts per hour and a maximum abrasive usage of 17,875 pounds of steel shots per hour, controlled by a baghouse with no identification, and exhausting through stack ABS1.

(13) One (1) vertical descaling machine, located in Building 107, identified as CRN-0107-07-23-HH13, constructed in 2005, with a maximum throughput rate of 2,500 pounds of steel parts per hour and a maximum abrasive usage of 143,000 pounds of steel shots per hour, controlled by a baghouse with no identification, and exhausting through stack ABS2.

(b) Thirty-three (33) boilers, consisting of:

(1) Cleaver Brooks natural gas fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1977, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0115-03-23-GG12-S.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-01-17-W25 is considered an affected facility.

(4) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-03-17-W25 is considered an affected facility.

(5) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-01-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0140-01-17-Y25-S.

(6) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-02-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0140-02-17-Y25-S.

(7) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-01-17-CC23, located in Building 150, constructed in April 1989, with a maximum capacity of 25.2 MMBtu/hr, and exhausting to stack CRN-0150-01-17-CC23-S.

(8) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-03-17-CC23, located in Building 150, constructed in April 1989, with a maximum capacity of 25.2 MMBtu/hr, and exhausting to stack CRN-0150-03-17-CC23-S.

(9) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-01-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 MMBtu/hr, and exhausting to stack CRN-0199-01-23-JJ14-S.

(10) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-02-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 MMBtu/hr, and exhausting to stack CRN-0199-02-23-JJ14-S.

(11) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 MMBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 MMBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

(13) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 MMBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(14) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(15) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(16) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 MMBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(17) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 MMBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(18) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 MMBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(19) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 MMBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.

(20) Hurst natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-03-17-U26, located in Building 41, constructed in 2008, with a maximum capacity of 6.9 MMBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(21) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 MMBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1977, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

(23) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 MMBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(24) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 MMBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(25) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 MMBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(26) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 MMBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(27) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 MMBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(28) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 MMBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(29) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 MMBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(30) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 MMBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(31) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 MMBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(32) Superior natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-2674-01-00-0001, located in Building 2674, constructed in 1985, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-2674-01-00-0001-S.

(33) Superior natural gas and/or distillate fuel No. 2-fired boiler, identified as CRN-2674-02-00-0001, located in Building 2674, constructed in 1985, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-2674-02-00-0001-S.

(c) Three (3) carpentry shops, identified as:

(1) CRN-0056-04-10-T21, located in Building 56, with a maximum wood usage of 74,880 board feet per year and a maximum process weight rate of 0.14 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0056-04-10-T21-S. [40 CFR Part 64]

(2) CRN-0224-02-23-HH12, located in Building 224, with a maximum wood usage of 1,000,000 board feet per year and a maximum process weight rate of 0.69 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0224-02-23-HH12-S. [40 CFR Part 64]

(3) CRN-2720-04-23-GG12, located in Building 2720, with a maximum wood usage of 14,000 board feet per year and a maximum process weight rate of 0.25 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-2720-04-23-GG12-S.

(d) Twenty-six (26) paint booths, consisting of:

(1) CRN-0104-01-23-HH16, exhausting to vent HH16, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, exhausting to vent HH16, located in Building 104, constructed in 1983, using a dry filter to control particulate matter emissions.

(3) CRN-0107-01-23-HH13, exhausting to vent HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(4) CRN-0107-02-23-HH13, exhausting to vent HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-03-23-HH13, exhausting to vent HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(6) CRN-0107-04-23-HH13, exhausting to vent HH13, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(7) CRN-0136-01-17-Z26, exhausting to vent Z26, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(8) CRN-0155-02-17-BB25, exhausting to vent BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(9) CRN-0155-03-17-BB25, exhausting to vent BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions..

(10) CRN-0169-01-24-EE22, exhausting to vent EE22, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(11) CRN-2520-01-17-Y26, exhausting to vent Y26, located in Building 2520, constructed in 1968, using a dry filter to control particulate matter emissions.

(12) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, exhausting to vent N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, exhausting to vent N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, exhausting to vent N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(13) CRN-3234-09-17-U26, exhausting to vent U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(14) CRN-3234-10-17-U26, exhausting to vent U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(15) CRN-3234-15-17-U26, exhausting to vent U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(16) CRN-0198-01-23-II15, exhausting to vent II15, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(17) CRN-0227-01-23-HH12, exhausting to vent HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(18) CRN-0227-02-23-HH12, exhausting to vent HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(19) CRN-2697-01-17-W24, exhausting to vent W24, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions.

(20) CRN-2805-02-23-GG19, exhausting to vent GG19, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(21) CRN-2805-03-23-GG19, exhausting to vent GG19, located in Building 2805, constructed in 2006, using a dry filter to control particulate matter emissions.

(22) CRN-3168-02-17-V28, exhausting to vent V28, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

(23) CRN-0106-03-23-HH13, located in Building 106, constructed in 2005, equipped with four (4) HVLP guns to paint metal vehicles components, with a maximum primer usage of 5.82 lbs/hr and a maximum topcoat usage of 4.8 lbs/hr, using dry filters to control particulate matter emissions, and exhausting through stack PBS2. This paint booth is also equipped with one (1) 1.5 MMBtu/hr natural gas burner for paint curing.

(24) One (1) surface coating booth, identified as CRN-0106-04-23-PBS1, constructed in 2007 and located in Building 106, equipped with four (4) high volume low pressure (HVLP) spray applicators used to coat metal military kits, with a maximum primer usage rate of 0.8 gallons per hour and a maximum topcoat usage rate of 0.6 gallons per hour, using dry filters to control particulate matter emissions and exhausting to stack PBS1.

None of the paint booth control devices have unit identification numbers.

(e) Open burning/open detonation, constructed/installed before 1950, consisting of:

(1) Open Burning of Ordnance at the Ammunition Burning Ground, identified as CRN-ABG-01-19-DD43, with a maximum usage of 2.3 MMlb/yr (1,150 tons/yr) of Dunnage; 0.64 MMlb/yr (320 tons/yr) of Explosive; 4.7 MMlb/yr (2,350 tons/yr) of Propellant.

(2) Open Detonation of Ordnance at the Demolition Range, identified as CRN-DR-01-24-KK21, with a maximum usage of 0.13 MMlb/yr (65 tons/yr) of Dunnage; 1.6 MMlb/yr (800 tons/yr) of Explosive; 0.52 MMlb/yr (260 tons/yr) of Propellant.

(3) Open Burning of Ordnance at the Old Rifle Range, identified as CRN-ORR-01-24-JJ24, with a maximum usage of 0.15 MMlb/yr (75 tons/yr) of Dunnage; 0.032 MMlb/yr (16 tons/yr) of Explosive; 0.012 MMlb/yr (6 tons/yr) of Propellant.

(4) Fast and Slow Cookoff at the Ordnance Test Area, identified as CRN-OTA-01-29-WW18, with a maximum usage of 10,000 units of various ordnances per year.

(f) Mixing and pouring equipment in Building 200 used as a plastic bonded explosive line, constructed in 1984, consisting of mixing and pouring operations, with a maximum process weight rate of 214 pounds per hour, using a carbon adsorption system with a wet scrubber to control particulate matter emissions.

(g) Explosive bomb loading operations, constructed in 1987, consisting of:

(1) screening and weighing aluminum powder in Building 2714, using a baghouse for particulate control, with a maximum process weight rate of 161.5 pounds per hour;
(2) screening and weighing TNT in Building 153, using a wet scrubber for particulate control, with a maximum process weight rate of 641.8 pounds per hour; and
(3) melting and mixing aluminum powder and TNT in Building 152, using a wet scrubber for particulate control, with a maximum process weight rate of 8,032.5 pounds per hour.

(h) One natural gas-fired rotary kiln furnace in Building 69, used for white phosphorous conversion to phosphoric acid, constructed in 1983, with a maximum process weight rate of 480 pounds per hour, and equipped with an integral variable throat venturi scrubber for particulate control.

(i) Service Station (Gasoline/Diesel Dispensing), identified as CRN-3280-04-17-X23, located in Building 3280, with a maximum usage of 350,000 gallons of unleaded gasoline per year, and 350,000 gallons of diesel per year.

(1) Two (2) above ground vertical fixed-roof cone tanks, storing unleaded gasoline, constructed in 1995, identified as:

(A) CRN-3280-01-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m3), and equipped with a vapor recovery system of 99.9+% removal efficiency;

(B) CRN-3280-02-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m3), and equipped with a vapor recovery system of 99.9+% removal efficiency.

(j) Testing of fuses, boosters, other explosive devices and dissection of batteries, consisting of:

(1) One (1) containment chamber in Building 2167, constructed in 1986, used to test burn pyrotechnic items, with a maximum process weight rate of 0.66 pounds per hour.

(2) One (1) test cell in Building 3235, constructed in 1991, used to test lithium batteries, with a maximum throughput of 149 batteries per year, using a vertical packed-bed tower to control particulate matter emissions.

(3) One (1) battery dissection fume hood in Building 3235, permitted to construct in 2007, used to dissect batteries, using no control, with a maximum throughput of 149 batteries per year.

(4) One (1) containment chamber in Building 142, constructed in 1995, used to test detonation of fuses, boosters and other explosive devices, with a maximum process weight rate of 0.05 pounds per hour, using a baghouse to control particulate matter emissions.

(5) One (1) flare testing operation in Building 2869, constructed in 1977, identified as CRN-2869-01-02-V01, using a baghouse for control and having a combined maximum process weight rate less than 100 pounds per hour.

(6) One (1) flare testing operation in Building 366, constructed in 1988, identified as CRN-0366-01-02-V01, both using a baghouse for control and having a combined maximum process weight rate less than 100 pounds per hour.

(k) One (1) contained detonation chamber, identified as P01, constructed in 2001,located in Building 3339, with a maximum capacity of 7,500 pounds per hour gross weight of munitions, 750 pounds per hour net explosive weight (NEW), equipped with one (1) baghouse for particulate control, and exhausting to stack S01.

(l) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, located near Building 69, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

Under NESHAP, Subpart EEE, the mobile plasma treatment system (MPTS) (P02) is considered a new affected facility under 40 CFR 63.1206 (a) (1) (i) (B) and an existing affected facility under 40 CFR 63.1206 (a) (1) (ii) (B).

(m) One (1) diesel-fueled 4160-volt, 1000 kW generator which powers the MPTS, constructed in 2002, exhausting at stack S03.

(n) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

Under NESHAP, Subpart EEE, the APE 1236 rotary kiln incinerator (P03) is considered a new affected facility under 40 CFR 63.1206 (a) (1) (i) (B) and an existing affected facility under 40 CFR 63.1206 (a) (1) (ii) (B).

(o) One (1) flare manufacturing process located in Buildings 2504 and 145, constructed in 2002, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(p) One (1) flare manufacturing process, located in Building 198, constructed in 2003, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

Insignificant Activities

This stationary source also includes the following insignificant activities:

(a) Fuel oil-fired combustion sources with heat inputs less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight:

(1) Two (2) 1.3 MMBtu/hr natural gas/fuel oil-fired boilers, identified as Cleaver Brooks CRN-0180-01-17-W22 and CRN-0180-02-17-W22, constructed in 1999, located in Building 180. [326 IAC 6-2-4]

(b) Natural gas-fired combustion sources with inputs less than ten million (10,000,000) Btu per hour, identified as:

(1) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 2, 4, 7, 14, 18, 38, 45, 181, 224, 252, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, 2167, 2506, 2516, 2517, 2693, 2720, 2721, 2748, 2749, 2889, 2931, 2987, 2993, and 3006 [326 IAC 6-2-3]

(ii) two boilers in building 2521 [326 IAC 6-2-3]

(iii) One (1) 1.63 MMBtu natural gas-fired boiler, constructed in July 1983, located in Building 74 [326 IAC 6-2-3]

(2) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 5, 7, 8, 10, 34, 36, 40, 47, 66, 74, 77, 105, 128, 180, 363, 365, 366, 966, 1141, 1149, 2036, 2045, 2084, 2518, 2521, 2692, 2694, 2807, 2902, 2963, 2995, 3149, 3173, 3188, 3233, 3234, 3235, 3239, 3243, 3250,3284, 3291, 3319, 3324, 3325, 3330C, 3333, 3334, 3339, 3348, 3422 [326 IAC 6-2-4]

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906, 3168, 3285, 3291, 3373, 3395 [326 IAC 6-2-4]

(iii) three boilers in each of the following buildings: 3287 [326 IAC 6-2-4]

(iv) four boilers in each of the following buildings: 3241, 3251, 3330N, 3330S [326 IAC 6-2-4]

(c) One (1) diesel-fired emergency generator, located at Building 10, with a maximum capacity of 268 horsepower, installed in 2007 with a manufacturer's date of after April 1, 2006, and a displacement of less than 10 liters per cylinder.

Under NSPS, Subpart IIII, the 268 horsepower diesel-fired emergency generator is considered an affected facility.

(d) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2, 326 IAC 8-3-5].

(e) The following equipment related to manufacturing activities not resulting in the emission of HAP's: brazing, cutting torches, soldering, and welding.

(f) Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment, or vehicles at the source where air emissions from those activities would not be associated with any commercial production process, including the following: brazing, soldering, or welding operations and associated equipment.

(g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following: deburring, buffing, polishing, pneumatic conveying, and woodworking operations.

(h) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat inputs less than six million (6,000,000) Btu per hour.

(i) Equipment powered by internal combustion engines of less than 500,000 Btu/hour capacity, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour. Each internal combustion engine was installed prior to July 11, 2005 and has not been modified since installation.

(j) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage tank of less than 10,500 gallon capacity.

(k) A petroleum fuel, other than gasoline, dispensing facility, having a storage tank of less than 10,500 gallon capacity, and dispensing less than 230,000 gallons per month.

(l) Storage tanks less than one thousand (1,000) gallons in capacity with annual throughputs less than twelve thousand (12,000) gallons.

(m) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(n) Machining where an aqueous cutting coolant continuously floods the machine interface.

(o) Solvent recycling systems with less than 100 gallon batch capacity.

(p) Activities associated with the treatment of wastewater streams with an oil and grease content less than 1% by volume.

(q) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on site sewage treatment facility.

(r) Natural draft cooling towers circulating less than or equal to 340,000 gallons per day.

(s) Quenching operations used with heat treating processes.

(t) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(u) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

(v) Asbestos abatement projects regulated by 326 IAC 14-10.

(w) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.

(x) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.

(y) On-site fire and emergency response training approved by the department.

(z) Gasoline generators not exceeding 110 hp.

(aa) Diesel generators not exceeding 1800 hp.

(bb) Natural gas turbines not exceeding 16,000 hp.

(cc) Stationary fire pumps.

(dd) Filter or coalescer media changeout.

(ee) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(ff) Activities with emissions equal to or less than thresholds:

Lead (Pb = 0.6 ton/year or 3.29 lbs/day
Carbon Monoxide (CO) = 25 lbs/day
Sulfur Dioxide (SO_2) = 5 lbs/hour or 25 lbs/day
Particulate matter (PM) = 5 lbs/hour or 25 lbs/day
Nitrogen Oxides (NOx) = 5 lbs/hour or 25 lbs/day
Volatile Organic Compounds (VOC) = 3 lbs/hour or 15 lbs/day

(1) Alphos tank, located in Building 2521;

(2) Brown oxide line, located in Building 38;

(3) Bubble tester. Located in Building 2931;

(4) Coating, phosphorous, located in Building 1884;

(5) Curing room, located in Building 3148;

(6) Four (4) detonations cells, located in Building 142;

(7) Electrical discharge, located in Building 198;

(8) Environmental chamber, located in Building 2167;

(9) Explosives chamber, located in Building 142;

(10) Explosives removal (Steam-out and Autoclave), located in Building 160;

(11) Explosives mixing, located in Building 200;

(12) Explosives molding, located in Building 126;

(13) Heating oil bath, located in Building 39;

(14) Two (2) hood, fumes, located in 2940;

(15) Hood, vent, located in Building 38;

(16) Hood, vent, located in Building 174;

(17) Hood, vent, located in Building 226;

(18) Infrared dry, located in Building 2036;

(19) Three (3) injection molders, located in Building 198;

(20) IR Heater, located in Building 38;

(21) Mold release unit, located in 226;

(22) Oven, located in Building 2940;

(23) Curing oven, located in Building 226;

(24) Three (3) drying ovens, located in Building 3234;

(25) Laboratory oven, located in Building 109;

(26) Paint booth, located in Building 2044;

(27) Fugitive emissions from painting;

(28) Passivation process;

(29) PDL Foam, located in Building 2698;

(30) Plating lines A, B, and C, located in Building 3234;

(31) Quench tank, located in Building 125;

(32) Rust inhibitor, located in Building 1884;

(33) Solvent hand wiping, located in Building 155;

(34) Solvent System, located in Building 226;

(35) Miscellaneous solvent usage in Building 2728;

(36) Nineteen (19) above ground storage tanks;

(37) Seventy (70) underground storage tanks;

(38) One (1) fuel storage tank, located at Building 2760;

(39) Paint stripper, resistant, located in Building 38;

(40) Tank, brighteners, located at Building 1884;

(41) Vapor carbon fluid, located in Building 125;

(42) Washer, roller, located in Building 18;

(43) Washout unit, located in Building 18;

(44) Six (6) Underground Storage Tanks, identified as:

(i) CRN-0003-02-17-U21;

(ii) CRN-2737-06-12-M41;

(iii) CRN-2737-07-12-M41;

(iv) CRN-2984-02-17-W22;

(v) CRN-2984-03-17-W22; and

(vi) CRN-3149-02-16-DD12.

(45) One hundred and fifty-eight (158) electric or steam powered air compressors.

(46) One (1) Dispo Spray Booth, Model L130, with a maximum capacity of nine (9) twelve (12) ounce paint cans per month, with no overspray and used for repairing small microwave warfare components consisting of aluminum and glass.

(47) One (1) closed loop conversion process, used to convert ammonium picrate to picric acid with a maximum production capacity of 7 tons of picric acid per day, and exhausting to stacks S2 and V1.

(48) One (1) strand burner, located in Building 142, used for a maximum of 25 tests of differing materials per day, with no pollution control.

(49) One (1) touch up paint booth, identified as CRN-0155-04-17-BB25, located in Building 155 and using a dry filter to control particulate emissions.

(gg) Emissions from research and development activities as defined in 326 IAC 2-7-1(21)(E): One (1) experimental catalytic converter equipped diesel-fired generator, located at the test platform at Building 3235.

(hh) One (1) C-4 extruder process line, located in Building 3322, with a maximum manufacturing capacity of forty (40) 1.2 pound C-4 blocks per minute.

Emission Units and Pollution Control Equipment Removed From the Source:

The following emission units and/or pollution control equipment have been removed from the source:

(a) One (1) Asphaltic Coating Operation, identified as CRN-0155-05-17-BB25, located in Building 155, with a maximum usage of 3.64 tons per hour, using an electrostatic precipitator for PM control, and exhausting to stack CRN-0155-05-17-BB25-S. This unit was removed in 2006.

(b) One (1) Chromic Acid Anodizing Tank, identified as CRN-3234-13-17-U26, located in Building 3234, equipped with a packed-bed scrubber, and exhausting to stack CRN-3234-13-17-U26-S. This unit was never installed/constructed.

(c) One (1) Stripping Tank (open-top vapor degreaser), constructed in 1992, identified as CRN-3234-12-17-U26, located in Building 3234, and exhausting to stack CRN-3234-12-17-U26-S. This unit was never installed/constructed.

(d) One (1) Vapor Degreaser, identified as CRN-0106-03-23-HH13, located in Building 106, with a maximum Natural Orange usage of 0.5 gallons per day, equipped with

cooling/condensing coils and a cover to control VOC emissions, and exhausting to stack CRN-0106-03-23-HH13-S. This unit was removed in 2004.

(e) One (1) incinerator used for the destruction of classified materials, located in Building 45. This unit has been decommissioned and scheduled for demolition. It is currently unusable since the wiring and fuel/power source have been removed. It can no longer be fired.

(f) Abrasive blasting units, consisting of:

(1) CRN-0107-05-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4,433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-05-23-HH13-S. This unit was removed in 2005.

(2) CRN-0107-08-23-HH13, located in Building 107, constructed in 1993, with a maximum capacity of 700 lbs/yr (0.4 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-08-23-HH13-S. This unit was removed in 2005.

(3) CRN-0107-09-23-HH13, located in Building 107, constructed in 1993, with a maximum capacity of 700 lbs/yr (0.35 TPY) abrasive used, using a baghouse to control emissions, and exhausting to stack CRN-0107-08-23-HH13. This unit was removed in 2005.

(4) CRN-0107-06-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4,433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-06-23-HH13-S. This unit was removed in 2005.

(5) CRN-0107-07-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4,433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-07-23-HH13-S. This unit was removed in 2005.

(g) Surface coating booth CRN-0106-01-23-HH13, exhausting to vent HH13, located in Building 106, constructed in 1960, using a water wall to control particulate matter emissions. [Note: Surface coating booth CRN-0106-01-23-HH13 was replaced by booth CRN-0106-04-23-PBS1 pursuant to Minor Permit Modification 101-24778-00005 issued on August 20, 2007.]

(h) Surface coating booth CRN-0109-01-23-GG14, exhausting to vent GG14, located in Building 109, constructed in 1981, using a dry filter to control particulate matter. This unit was removed in 2004.

(i) CRN-2074-03-16-DD13, exhausting to vent DD13, located in Building 2074, constructed in 1987, using a dry filter to control particulate matter emissions. emissions. This unit was removed in 2006.

(j) CRN-2713-01-17-X23, exhausting to vent X23, located in Building 2713, constructed in 1979, using a dry filter to control particulate matter emissions. This unit was removed in 2004.

(k) One (1) 0.275 MMBtu/hr fuel oil-fired boiler, constructed in September 1990, located in Building 2918. This unit was removed in 2006.

(l) Eighteen (18) autoclaves and one (1) belt flaker located in Building 160, used for the demilitarization of 750 pound bombs, with a combined maximum capacity of 2,000 lbs/hr, using six (6) wet scrubbers to control particulate matter emissions. [Note: The wet scrubbers have not been from Building 160.] These units were removed in 2007.

(m) One (1) Krypton Leak Test Unit, constructed in 1990, identified as CRN-2931-05- 17-V25, with a maximum capacity of 1.0 curie (ci)/year, and exhausting to stack CRN-2931-05-17-V25. This unit was removed in 2007.

The following emission units and/or pollution control equipment have been modified:

(a) The following surface coating booth was converted to a water jet booth to remove paint from bombs being coated in other paint booths:

(1) CRN-0155-01-17-BB25, exhausting to vent BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(b) The particulate control devices for the following surface coating booths were changed from water walls to dry filters:

(1) CRN-0104-01-23-HH16;
(2) CRN-0104-02-23-HH16; and
(3) CRN-2520-01-17-Y26.

(c) The following insignificant abrasive blasting units were moved from Building 2930 to Building 41 in 2006:

(1) CRN-2930-06-17-V25, now identified as CRN-0041-06-17-V25, originally constructed in 1993, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and originally exhausting to stack CRN-2930-06,07,08-17-V25-S and now exhausting to stack CRN-0041-06,07,08-17-V25-S.

(2) CRN-2930-07-17-V25, now identified as CRN-0041-07-17-V25 originally constructed in 1993, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, originally exhausting to stack CRN-2930-06,07,08-17-V25-S and now exhausting to stack CRN-0041-06,07,08-17-V25-S.

(3) CRN-2930-08-17-V25, originally constructed in 1993, with a maximum capacity of 1,000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, originally exhausting to stack CRN-2930-06,07,08-17-V25-S and now exhausting to CRN-0041-06,07,08-17-V25-S.

(d) CRN-0155-04-17-BB25, exhausting to vent BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions was removed in 2008 and replaced with a touch up booth also identified as CRN-0155-04-17-BB25 and using a dry filter to control particulate matter emissions and having insignificant level of emissions.

Existing Approvals

Since the issuance of Part 70 Operating Permit No.: T101-7341-00005 on May 15, 2001, the source has constructed or has been operating under the following approvals as well:

(a) First Significant Source Modification No.: 101-14493-00005 issued on January 4, 2002;

(b) First Significant Permit Modification No.: 101-14789-00005 issued on January 22, 2002;

(c) Second Significant Source Modification No.: 101-14772-00005 issued on June 7, 2002;

(d) Second Significant Permit Modification No.: 101-14889-00005 issued on June 12, 2002;

(e) First Minor Source Modification No.: 101-15490-00005 issued on June 26, 2002;

(f) Third Significant Permit Modification No.: 101-15983-00005 issued on September 11, 2002;

(g) First Minor Permit Modification No.: 101-15582-00005 issued on October 4, 2002;

(h) First Administrative Amendment No.: 101-16745-00005 issued on December 13, 2002;

(i) Second Minor Source Modification No.: 101-16288-00005 issued on January 8, 2003;

(j) Second Minor Permit Modification No.: 101-16761-00005 issued on March 19, 2003;

(k) Fourth Significant Permit Modification No.: 101-16689-00005 issued on March 19, 2003;

(l) Third Significant Source Modification No.: 101-17239-00005 issued on October 22, 2003;

(m) Fifth Significant Permit Modification No.: 101-17317-00005 issued on November 10, 2003;

(n) Third Minor Permit Modification No.: 101-18186-00005 issued on June 4, 2004;

(o) Second Administrative Amendment No.: 101-19237-00005 issued on July 6, 2004;

(p) Third Minor Source Modification No.: 101-20270-00005 issued on December 15, 2004;

(q) Fourth Minor Permit Modification No.: 101-19801-00005 issued on January 27, 2005;

(r) Fourth Minor Source Modification No.: 101-21188-00005 issued on June 29, 2005;

(s) Fifth Minor Permit Modification No.: 101-21373-00005 issued on August 24, 2005;

(t) Sixth Significant Permit Modification No.: 101-23540-00005 issued on December 8, 2006;

(u) Sixth Minor Permit Modification No.: 101-23737-00005 issued on January 29, 2007;

(v) Seventh Significant Permit Modification No.: 101-23805-00005 issued on June 5, 2007;

(w) Fifth Minor Source Modification No.: 101-24734-00005 issued on June 22, 2007; and

(x) Seventh Minor Permit Modification No.: 101-24778-00005 issued on August 20, 2007.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

All permit conditions related to the asphaltic coating operation (CRN-0155-05-17-BB25), chromic acid anodizing tank (CRN-3234-13-17-U26), stripping tank (CRN-3234-12-17-U26), vapor degreaser (CRN-0106-03-23-HH13), the incinerator previously located in Building 45, the eight

(8) abrasive blasting units, surface coating booths CRN-0155-01-17-BB25, CRN-0106-01-23-HH13, and CRN--0109-01-23-GG14, the autoclaves and belt flaker have not been incorporated into this Part 70 Operating Permit Renewal because these units have been removed from the source or modified.

Additionally, the following surface coating operations that were listed in permit T101-24778-00005 under Condition D.4.2 (General Provisions Relating to VOC Rules: Military Specifications [326 IAC 8-1-7] and Site-Specific RACT Plan [326 IAC 8-1-5]), paragraph b, have been moved to permit Condition D.4.3 (Miscellaneous Metal Coating Operations [326 IAC 8-2-9]) of this permit because these facilities no longer utilize high VOC containing paints for these operations.

(1) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983;
(2) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983;
(3) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980;
(4) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980;
(5) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980;
(6) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980;
(7) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986;
(8) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986;
(9) CRN-0155-04-17-BB25, located in Building 155, constructed in 1986; and
(10) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983,

The source has requested to comply with the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) for these operations.

Also, the surface coating operations identified as CRN-0109-01-23-GG14, CRN-0174-01-24-FF21, and CRN-3168-02-17-V28, that were previously listed in permit T 101-24778-00005 under Condition D.4.3 have been removed from the condition in this permit because during this review it was determined that these metal coating operations are not subject to 326 IAC 8-2-9.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
Battery Dissection Fume Hood	Battery Dissection Fume Hood	25.00	1.00	15,000	80
GG19	CRN-2805-03-23-GG19	9.00	2.00	12,000	Ambient
ABS1	Blaster	13.00	1.00	1,000	Ambient
ABS2	Blaster	13.00	1.00	2,500	Ambient
PBS2	Paint Booth	35.00	2.83	14,000	140
S01	Contained Detonation Chamber	51.00	3.50	35,113	95
S02	MPTS	40.00	0.67	2,336	450
S4	Mixer	15.00	1.00	1,500	70

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
PBS1	Surface Coating Booth (CRN-0106-04-23-PBS1)	35.00	3.00	17,500	70

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 24).

County Attainment Status

The source is located in Martin County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Martin County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) (326 IAC 2-2). See the State Rule Applicability - Entire Source section.

(b) Martin County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

(c) Martin County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) (326 IAC 2-2). See the State Rule Applicability – Entire Source section.

(d) On October 25, 2006, a final rule took effect revoking the one-hour ozone standard in Indiana.

(e) Fugitive Emissions
Since this type of operation is not in one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	Potential Emissions (tons/year)
PM	>250
PM-10	>250
SO_2	>250
VOC	>250
CO	>250
NO_x	>250

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAPs	Potential Emissions (tons/year)
Worst-Case Single HAP (Xylene)	>10
Total HAPs	>25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10, SO_2, VOC, CO, and NOx is greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of a single HAP is greater than ten (10) tons per year and the potential to emit of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 Operating Permit Renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)							
Process/Emission Unit	PM	PM-10	SO_2	VOC	NOx	CO	Single HAP	Total HAPs
Abrasive Blasting (CRN-0104-03-23-	<26.55 (<2.41	<26.55 (<2.41	-	-	-	-	-	-

	Potential to Emit (tons/year)							
Process/Emission Unit	PM	PM-10	SO_2	VOC	NOx	CO	Single HAP	Total HAPs
HH16, CRN-0106-02-23-HH13, CRN-0107-06-23-HH13, CRN-0107-07-23-HH13, CRN-2521-07-02-J17, CRN-2521-08-02-J17, CRN-2521-09-2-J17, CRN-3234-14-17-U26, CRN-0227-03-23-HH12, CRN-3168-03-17-V28	each)[1]	each)[1]						
Abrasive Blasting (CRN-0107-06-23-HH13 and CRN-0107-07-23-HH13)	1.08[1]	1.08[1]	-	-	-	-	-	-
NG Boilers (with No. 2 Fuel Oil Back-up)	20.27	20.27	719.75	7.75	202.75	118.36	2.54 (Hexane)	2.66
Carpentry Shops (CRN-0056-04-10-T21, CRN-0224-02-23-HH12, CRN-2720-04-23-GG12)	25.93[1]	25.93[1]	-	-	-	-	-	-
Surface Coating (CRN-2728-01-12-N42, CRN-2728-02-12-N42, CRN-2728-03-12-N42)	1.19[3]	1.19[3]	-	<40.00[2]	-	-	2.79 (Xylene)	4.60
Surface Coating (CRN-0106-03-23-HH13)	1.74[3]	1.74[3]	-	18.98	-	-	1.19 (MIBK)	2.11
Surface Coating (CRN-2805-03-23-GG19)	0.19[3]	0.19[3]	-	6.63	-	-	-	-
Contained Detonation Chamber (P01)	9.33[1]	9.33[1]	0.09[5]	0.19[5]	<14.45[2]	<96.56[2]	0.02[4] (Manganese)	0.02[4]
Mobile Plasma Treatment System (MPTS) and 1,000 kW Generator	0.60[5]	0.60[5]	19.75[5]	1.17[5]	<25.41[2]	<2.91[2]	0.06[5]	0.06[5]
Flare Manufacturing Process (Buildings 2504 and 145)	-	-	-	<25.00[6]	-	-	<10.00[7] (Hexane)	<25.00[7]
Flare Manufacturing Process (Building 198)	-	-	-	<25.00[6]	-	-	<10.00[7] (Hexane)	<25.00[7]
APE 1236 Rotary Kiln Incinerator (P03)	0.35[2]	0.35[2]	1.62[5]	0.11[5]	<39.90[2]	0.35[5]	0.11[5] Dibutylphthalate, 2,4, Dinitrotoluene, or Hexachlorobenzene	0.33[5]
NG Furnaces	1.79	7.14	0.56	5.17	93.95	78.92	1.69 (Hexane)	1.77
Twenty Surface Coating Booths	6.99[3]	6.99[3]	-	360.87	-	-	37.38 (Xylene)	66.29
Total Emissions	<250	<250	>250	>250	>250	>250	>10	>25
PSD Major Source thresholds	250	250	250	250	250	250	N/A	N/A

(1) Based on the allowable particulate (PM) emission rate required to comply with 326 IAC 6-3-2 (Particulate Emission Limitations for manufacturing Processes). PM emissions are assumed equal to PM-10 emissions.
(2) Based on the PSD minor limits in previous permit approvals.
(3) Based on the controlled particulate (PM) emission rate required to comply with 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes) for surface coating operations. PM emissions are assumed equal to PM-10 emissions.
(4) Since particulate emissions are controlled in order to comply with the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) emissions of metal HAPs are also controlled.
(5) Hours of operation or throughput are limited in order to render 326 IAC 2-2 (PSD) not applicable for NOx and/or CO emissions. Emissions of other pollutants are also limited indirectly.
(6) VOC emissions are limited in order to render 326 IAC 8-1-6 (BACT) not applicable to these units.
(7) HAP emissions are limited in order to render 326 IAC 2-4.1 (MACT) not applicable to these units.

(a) This existing stationary source is major for PSD (326 IAC 2-2) purposes because the emissions of regulated pollutants (VOC, NOx, SO_2, and CO) are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories.

(b) This existing stationary source is major under Section 112 of the Clean Air Act because the emission of a single HAP is greater than ten (10) tons per year and the potential to emit of a combination of HAPs is greater than twenty-five (25) tons per year.

Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Carpentry Shop (CRN-0056-04-10-T21) - PM	Cyclone	Y	> 100	< 100	100	Y	N
Carpentry Shop (CRN-0056-04-10-T21) - PM10	Cyclone	N	> 100	< 100	100	N	N
Carpentry Shop (CRN-0224-02-23-HH12) - PM	Cyclone	Y	> 100	< 100	100	Y	N
Carpentry Shop (CRN-0224-02-23-HH12) - PM10	Cyclone	N	> 100	< 100	100	N	N
Detonation Chamber (P01) - PM/PM10	Baghouse	Y	>100	<100	100	Y	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Mobile Plasma Treatment System (P02) - PM/PM10	Baghouse	N	>100	<100	100	N*	N
Mobile Plasma Treatment System (P02) - NOx	Selective Catalytic Reduction Unit	Y	>100	<100	100	N*	N
Mobile Plasma Treatment System (P02) - VOC	Afterburner	Y	>100	<100	100	N*	N
APE 1236 Rotary Kiln (P03) - NOx	None	N	>100	<100	100	N*	N

* These units are not subject to CAM because they are subject to NESHAP Subpart EEE.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the two (2) of the three (3) carpentry shops, identified as CRN-0056-04-10-T21 and CRN-0224-02-23-HH12, and the contained detonation chamber identified as P01, upon issuance of the Part 70 Operating Permit Renewal. The carpentry shops and P01 are subject to visible emission notations, particulate control requirements, and parametric monitoring requirements. Therefore, no additional monitoring requirements have been added to the permit for these operations. All other emission units have the potential to emit before controls less than the major source thresholds of the regulated pollutants.

(b) One (1) 268 horsepower diesel-fired emergency generator, which has a displacement of less than 10 liters per cylinder, is subject to the requirements of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (NSPS) (326 IAC 12 and 40 CFR Part 60, Subpart IIII) because the generator has a vendor manufacturing date after April 1, 2006 and was constructed after July 11, 2005. The emission unit subject to this rule is described as follows:

(1) One (1) diesel-fired emergency generator, with a maximum capacity of 268 horsepower, installed in 2007 with a manufacturer's date of after April 1, 2006, and a displacement of less than 10 liters per cylinder.

Under NSPS, Subpart IIII, the 268 horsepower diesel-fired emergency generator is considered an affected facility.

Non-applicable portions of the NSPS will not be included in the permit. These emission units are subject to the following portions of 40 CFR Part 60, Subpart IIII:

(1) 40 CFR 60.4200(a).
(2) 40 CFR 60.4200(a)(2).
(3) 40 CFR 60.4200(a)(2)(i).
(4) 40 CFR 60.4200(d).
(5) 40 CFR 60.4202.
(6) 40 CFR 60.4205(b).
(7) 40 CFR 60.4206.
(8) 40 CFR 60.4207(a).
(9) 40 CFR 60.4207(b).
(10) 40 CFR 60.4207(c).
(11) 40 CFR 60.4207(e).
(12) 40 CFR 60.4209(a).

(13) 40 CFR 60.4211(a).
(14) 40 CFR 60.4211(c).
(15) 40 CFR 60.4211(e).
(16) 40 CFR 60.4214(b).
(17) 40 CFR 60.4218.
(18) 40 CFR 60.4219.
(19) Table 1 to Subpart IIII.
(20) Table 8 to Subpart IIII.

The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart IIII.

40 CFR Part 60, Subpart IIII does not apply to the other generators (diesel-fueled generator that powers MPTS, insignificant diesel generators not exceeding 1800 hp) at this facility because they were all constructed before the applicability date of July 11, 2005.

(c) Two (2) natural gas fired boilers, identified as CRN-0128-01-17-W25 and CRN-0128-03-17-W25, which have a maximum heat input capacity of less than 100 MMBtu/hr but greater than 10 MMBtu/hr each and were constructed after June 9, 1989, are subject to the requirements of the New Source Performance Standards (NSPS) (326 IAC 12-1 and 40 CFR Part 60, Subpart Dc) (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units). The emission units subject to this rule include the following:

(1) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-01-17-W25 is considered an affected facility .

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 MMBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

Under NSPS, Subpart Dc, Boiler CRN-0128-03-17-W25 is considered an affected facility.

Non-applicable portions of the NSPS will not be included in the permit. These emission units are subject to the following portions of 40 CFR Part 60, Subpart Dc:

(1) 40 CFR 60.40c (a).
(2) 40 CFR 60.40c (b).
(3) 40 CFR 60.40c (c).
(4) 40 CFR 60.40c (d).
(5) 40 CFR 60.41c.
(6) 40 CFR 60.42c (d).
(7) 40 CFR 60.42c (g).
(8) 40 CFR 60.42c (h)(1).
(9) 40 CFR 60.42c (i).
(10) 40 CFR 60.42c (j).
(11) 40 CFR 60.44c (a).

(12) 40 CFR 60.44c (b).
(13) 40 CFR 60.44c (g).
(14) 40 CFR 60.44c (h).
(15) 40 CFR 60.46c (e).
(16) 40 CFR 60.48c (a).
(17) 40 CFR 60.48c (b).
(18) 40 CFR 60.48c (d).
(19) 40 CFR 60.48c (e)(1 to 6) and (11).
(20) 40 CFR 60.48c (f) (except 3).
(21) 40 CFR 60.48c (g).
(22) 40 CFR 60.48c (i).
(23) 40 CFR 60.48c (j).

The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart Dc.

(d) The six (6) underground storage tanks, identified as CRN-0003-02-17-U21, CRN-3149-02-16-DD12, CRN-2737-06-12-M41, CRN-2737-07-12-M41, CRN-3280-01-17-X23, and CRN-3280-02-17-X23 are not subject to the requirements of New Source Performance Standards for Volatile Organic Liquid Storage Vessels (NSPS) (40 CFR Part 60, Subpart K, Ka, or Kb), which are incorporated by reference as 326 IAC 12. The six (6) underground storage tanks are used to store volatile organic liquids. However, the requirements of 40 CFR Part 60, Subpart K, Ka, or Kb are not applicable to these tanks because each tank has a capacity of less than 39,890 gallons (75 cubic meters). Therefore, the requirements of 40 CFR Part 60, Subpart K, Ka, and Kb have not been included in the permit.

(e) The requirements of National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (NESHAP) (40 CFR Part 63, Subpart MMMM), which are incorporated by reference as 326 IAC 20, are applicable to surface coating facilities (listed in Section D.4 of this permit) that are used to coat miscellaneous metal parts and products including, but are not limited to the following coating operations, that use 250 gallons per year or more of coatings that contain hazardous air pollutants (HAPs), and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants:

(i) motor vehicle parts and accessories;
(ii) bicycles and sporting goods;
(iii) recreational vehicles;
(iv) extruded aluminum structural components;
(v) railroad cars;
(vi) heavy duty trucks;
(vii) medical equipment;
(viii) lawn and garden equipment;
(ix) electronic equipment;
(x) magnet wire;
(xi) steel drums;
(xii) industrial machinery;
(xiii) metal pipes; and
(xiv) numerous other industrial, household, and consumer products.

Pursuant to 40 CFR 63.3881(c)(4), the surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military

munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) are exempt from the requirements of this rule. Since this source is owned and operated by the Armed Forces of the United States, it is exempt from the requirements of this rule and the requirements of 40 CFR Part 63, Subpart MMMM are not applicable to any of the surface coating operations at this source.

(f) This requirements of National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors (NESHAP (40 CFR Part 63, Subpart EEE), which are incorporated by reference as 326 IAC 20, apply to the following emission units:

(1) One (1) mobile plasma treatment system (MPTS), identified as P02, constructed in 2002, located near Building 69, with a maximum capacity of 3,600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

Under NESHAP, Subpart EEE, the mobile plasma treatment system (MPTS) (P02) is considered a new affected facility under 40 CFR 63.1206 (a) (1) (i) (B) and an existing affected facility under 40 CFR 63.1206 (a) (1) (ii) (B).

(2) One (1) APE 1236 rotary kiln incinerator, identified as P03, constructed in 2003, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3.0 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8.0 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

Under NESHAP, Subpart EEE, the APE 1236 rotary kiln incinerator (P03) is considered a new affected facility under 40 CFR 63.1206 (a) (1) (i) (B) and an existing affected facility under 40 CFR 63.1206 (a) (1) (ii) (B).

Nonapplicable portions of the NESHAP will not be included in the permit. The existing mobile plasma treatment system (MPTS) and the APE 1236 rotary kiln incinerator are subject to the following portions of 40 CFR Part 63, Subpart EEE:

(1) 40 CFR 63.1200(a)(1).
(2) 40 CFR 63.1200(c).
(3) 40 CFR 63.1201.
(4) 40 CFR 63.1203(b).
(5) 40 CFR 63.1203(c).
(6) 40 CFR 63.1203(d).
(7) 40 CFR 63.1206, except (a)(1)(i)(A), (a)(1)(i)(B)(3), (b)(7)(ii)(B), (b)(9), (b)(10), (b)(13), (b)(14)(ii), and (b)(15).
(8) 40 CFR 63.1207, except (f)(1)(xiii), (f)(1)(xiv), (f)(1)(xxiii), (g)(1)(iii)(B), and (m)(6).
(9) 40 CFR 63.1208.
(10) 40 CFR 63.1209, except (a)(1)(i)(1), (k)(1)(ii), (l)(1)(ii), (l)(1)(iii), (l)(1)(iv), (l)(2), (m)(1)(A), (m)(1)(B), (m)(1)(C), (n)(2)(iii), (n)(2)(iv), (n)(2)(v), (n)(2)(vi), (n)(2)(vii), (o)(1)(ii), and (o)(3).
(11) 40 CFR 63.1210.
(12) 40 CFR 63.1211.
(13) 40 CFR 63.1212.

(14) 40 CFR 63.1214.
(15) 40 CFR 63.1215, except (b)(7)(i), (b)(7)(iii), (b)(7)(iv), (b)(7)(v), (b)(7)(vi), (c)(3)(v), (e)(2)(i), (e)(2)(ii)(C), (f)(5).
(16) 40 CFR 63.1219(b).
(17) 40 CFR 63.1219(c).
(18) 40 CFR 63.1219(d).
(19) Table 1 to Appendix A.
(20) Appendix to Subpart EEE.

The provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart EEE.

(g) This requirements of National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (NESHAP (40 CFR Part 63, Subpart FFFF), which are incorporated by reference as 326 IAC 20, apply to all miscellaneous organic chemical processing units that are located at a major or minor source of hazardous air pollutants. The following emission units are considered affected facilities under this NESHAP:

(1) One (1) flare manufacturing process located in Buildings 2504 and 145, constructed in 2002, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(2) One (1) flare manufacturing process, located in Building 198, constructed in 2003, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

Nonapplicable portions of the NESHAP will not be included in the permit. The flare manufacturing processes are subject to the following portions of 40 CFR Part 63, Subpart FFFF:

(1) 40 CFR 63.2430
(2) 40 CFR 63.2435 (a)
(3) 40 CFR 63. 2440
(4) 40 CFR 63.2445 (b), (c)
(5) 40 CFR 63.2450 (a), (b), (e)(1), (g), (h), (l), (m), (p)
(6) 40 CFR 63.2460
(7) 40 CFR 63.2480 (b)(3)
(8) 40 CFR 63.2495
(9) 40 CFR 63.2500
(10) 40 CFR 63.2505
(11) 40 CFR 63.2515
(12) 40 CFR 63.2520
(13) 40 CFR 63.2525
(14) 40 CFR 63.2540
(15) 40 CFR 63.2545
(16) 40 CFR 63.2550
(17) Table 2 to Subpart FFFF
(18) Table 11 to Subpart FFFF
(19) Table 12 to Subpart FFFF

In addition, the open burning/open demolition activities are also subject to the following RCRA air standards and limitations:

(a) The Permittee shall comply with all applicable provisions of 40 CFR 264, Subpart CC.

(b) The Permittee shall notify the Regional Administrator upon planning to treat more than 70 shots per event at the Demolition Range.

(c) The Permittee shall comply with all self-implementing provisions of any future air regulations promulgated under the provisions of Section 3004(n) of RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA).

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
This existing source, which was constructed before August 1987, is a major source under 326 IAC 2-2 (PSD) because the potential to emit of VOC, SO_2, CO, and NOx, after federally enforceable limits, are each greater than 250 tons per year. This source is not in one of the 28 source categories under 326 IAC 2-2-1(gg)(1).

The following limitations have been included in the permit to restrict emissions from each modification to less than PSD significant emissions increases:

(a) In order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with PM/PM-10 emission limits listed in the table below:

Unit ID	Unit Description	PM Emission Limit (lbs/hr)	PM-10 Emission Limit (lbs/hr)
CRN-0107-06-23-HH13	Barrel Blast System	1.00	0.50
CRN-0107-07-23-HH13	Vertical Descaling Machine	4.50	2.80

With the above limits, the emissions from the modification in 2005 are limited to less than 25 tons per year for PM and less than 15 tons per year for PM10. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

(b) Pursuant to Significant Source Modification No.: 101-11153-00005, issued on October 12, 1999.

the VOC input to the three paint booths CRN-2728-01-12-N42 (Building 2728), CRN-2728-02-12-N42 (Building 2728), and CRN-2728-03-12-N42 (Building 2728) shall be limited to less than 39.0 tons, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit the VOC emissions to less than 40 tons per year and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(c) Pursuant to Significant Permit Modification No.: 101-14889-00005 issued on June 12, 2002, for the Contained Detonation Chamber (P01):

(1) The input to the Contained Detonation Chamber (P01) shall not exceed 1,700 tons of net explosive weight per consecutive twelve (12) month period, with compliance determined at the end of each month.

(2) The carbon monoxide (CO) emissions from the Contained Detonation Chamber shall not exceed 0.0568 pounds of CO per pound of net explosive weight (NEW) utilized.

(3) The nitrogen oxide (NOx) emissions from the Contained Detonation Chamber shall not exceed 0.0085 pounds of NOx per pound of net explosive weight (NEW) utilized.

(4) The particulate matter (PM) emissions from the Contained Detonation Chamber shall not exceed 0.0003 pounds of PM per pound of net explosive weight (NEW) utilized.

(5) The particulate matter, with a diameter of less than 10 micrometers (PM-10), emissions from the Contained Detonation Chamber shall not exceed 0.0003 pounds of PM-10 per pound of net explosive weight (NEW) utilized.

Compliance with these limits and Condition D14.1 shall limit the carbon monoxide emissions to less than 100 tons per year, the nitrogen oxide emissions to less than 40 tons per year, the PM emissions to less than 25 tons per year, and the PM-10 emissions to less than 15 tons per year and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(d) Pursuant to Significant Permit Modification No.: 101-14889-00005 issued on June 12, 2002, for the Mobile Plasma Treatment System (MPTS) and diesel generator:

(1) The total amount of diesel fuel used in the generator engine shall be limited to 89,604 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The combined carbon monoxide (CO) emissions from the mobile plasma treatment system (MPTS) and diesel generator shall not exceed 3.23 pounds per hour of operation.

(3) The combined nitrogen oxide (NOx) emissions from the mobile plasma treatment system (MPTS) and diesel generator shall not exceed 28.23 pounds per hour of operation.

Compliance with these limits, together with the limits on the Contained Detonation Chamber in Condition D.13.1, will limit the potential to emit of NOx and CO to less than 40 tons and 100 tons, respectively; and the PM and PM10 emissions to less than 25 tons and 15 tons, respectively ,per twelve (12) consecutive month period; and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(e) Pursuant to Significant Source Modification No.: 101-17239-00005, issued on October 23,2003, for the APE 1236 incinerator (P03):

(1) The net explosive weight (NEW) of the materials fed into the APE 1236 incinerator (P03) shall not exceed 347 tons per consecutive twelve (12) month period, with compliance determined at the end of each month.

(2) Baghouse C07, for the APE 1236 incinerator (P03), shall be in operation at all times that the APE 1236 incinerator (P03) is in operation. The particulate matter (PM and PM-10) emissions from baghouse C07 shall not exceed 2.017 pounds per ton of net explosive weight (NEW) utilized.

Compliance with these limits, together with the limits on the Contained Detonation Chamber in Condition D.13.1, will limit the potential to emit of NOx and CO to less than 40 tons and 100 tons, respectively; and the PM and PM10 emissions to less than 25 tons and 15 tons, respectively ,per twelve (12) consecutive month period; and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(f) The total number of batches from the flare manufacturing in Buildings 2504 and 145 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month. VOC emissions shall not exceed 0.015 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

(g) The total number of batches from the flare manufacturing in Building 198 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month. VOC emissions shall not exceed 0.015 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

Compliance with the above limits combined with VOC emissions from P02 (Building 3345), the generator which powers P02 , and P01(Building 3339), shall limit the VOC emissions from this modification to less than 40 tons per year and limit the VOC emissions from Buildings 2504 and 145; and 198 to less than 25 tons per year and render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable to the flare manufacturing processes in Buildings 2504 and 145; and 198.

326 IAC 1-5-2 (Emergency Reduction Plans)
The source has submitted an Emergency Reduction Plan (ERP) on June 25, 2000. A revised ERP was submitted to IDEM, OAQ on December 19, 2001. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3(a)(1), an emission statement must be submitted annually by July 1 and every year after. Therefore, the next emission statement for this source must be submitted by July 1, 2008. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
Each facility at this source will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

Note: In order to render 326 IAC 2-4.1 not applicable for the Flare Manufacturing Processes (Buildings 2504 and 145 and Building 198), HAP emissions from each operation have been limited to less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs.

Pursuant to Minor Permit Modification No.: 101-18186-0005 issued on June 4, 2004, the following limits have been included in the permit to render 326 IAC 2-4.1 not applicable:

(a) The total number of batches from the flare manufacturing process in Buildings 2504 and 145 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month.

(b) Total HAP emissions from the flare manufacturing process in Buildings 2504 and 145 shall not exceed 0.012 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

(c) The total number of batches from the flare manufacturing process in Building 198 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month.

(d) Total HAP emissions from the flare manufacturing process in Building 198 shall not exceed 0.012 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

Compliance with these limits shall limit emissions of any single HAP and any combination of HAPs from the flare manufacturing process to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable to the flare manufacturing processes in Buildings 2504 and 145, and 198.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(d), particulate emissions from the following surface coating operations shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications:

Emission Unit ID
CRN-0104-01-23-HH16
CRN-0104-02-23-HH16
CRN-0107-01-23-HH13
CRN-0107-02-23-HH13
CRN-0107-03-23-HH13
CRN-0107-04-23-HH13
CRN-0136-01-17-Z26
CRN-0155-02-17-BB25
CRN-0155-03-17-BB25
CRN-0169-01-24-EE22
CRN-2520-01-17-Y26
CRN-2728-01-12-N42
CRN-2728-02-12-N42
CRN-2728-03-12-N42
CRN-3234-09-17-U26
CRN-3234-10-17-U26
CRN-3234-15-17-U26
CRN-0198-01-23-II15
CRN-0227-01-23-HH12
CRN-0227-02-23-HH12
CRN-2697-01-17-W24
CRN-2805-02-23-GG19
CRN-2805-03-23-GG19
CRN-3168-02-17-V28

Emission Unit ID
CRN-0106-03-23-HH13
CRN-0106-04-23-PBS1

The source utilizes dry filters to comply with the requirements of 326 IAC 6-3-2(d) for surface coating operations.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, particulate emissions from each of the following operations shall not exceed the pound per hour limit listed in the table below:

Unit ID	Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)	Uncontrolled Particulate Emission Rate (lbs/hr)	Controlled Particulate Emission Rate (lbs/hr)
CRN-0106-02-23-HH13	Abrasive Blasting - Building 106	< 0.05	< 0.551	1.44	0.0014
CRN-2521-08-02-J17	Abrasive Blasting - Building 2521	< 0.05	< 0.551	17.33	0.0173
CRN-2521-09-02-J17	Abrasive Blasting - Building 2521	< 0.05	< 0.551	17.33	0.0173
CRN-3234-14-17-U26	Abrasive Blasting - Building 3234	< 0.05	< 0.551	17.33	0.0173
CRN-3168-03-17-V28	Abrasive Blasting - Building 3168	< 0.05	< 0.551	17.33	0.0173
CRN-0107-06-23-HH13	Abrasive Blasting - Barrel Blast System	0.48	2.51	3.54	0.0354
CRN-0107-07-23-HH13	Abrasive Blasting - Vertical Descaling Machine	1.25	4.76	21.20	0.2120
CRN-0056-04-10-T21	Carpentry Shop	0.14	1.10	47.74	0.48
CRN-0224-02-23-HH12	Carpentry Shop	0.69	3.20	49.09	0.49
CRN-2720-04-23-GG12	Carpentry Shop	0.25	1.62	7.88	0.08
-	Explosive Bomb Loading Operation - Screening and Weighing TNT	0.32	1.91	> 1.91	< 1.91

Unit ID	Unit Description	Maximum Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)	Uncontrolled Particulate Emission Rate (lbs/hr)	Controlled Particulate Emission Rate (lbs/hr)
-	Explosive Bomb Loading Operation - Melting and Mixing Aluminum Powder	4.02	10.41	> 10.41	< 10.41
-	Rotary Kiln - Building 69	0.24	1.58	> 1.58	< 1.58
-	Containment Chamber - Building 2167	< 0.05	< 0.551	> 0.551	< 0.551
-	Test Cell - Building 3235	< 0.05	< 0.551	> 0.551	< 0.551
-	Containment Chamber - Building 142	< 0.05	< 0.551	> 0.551	< 0.551
CRN-2869-01-02-V01	Flare Testing Processes-Building 2869	< 0.05	< 0.551	> 0.551	< 0.551
CRN-366-01-02-V01	Flare Testing Processes-Building 366	< 0.05	< 0.551	> 0.551	< 0.551
P01	Contained Detonation Chamber - Building 3339	0.38	2.13	225	0.12

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The following units are exempt from 326 IAC 6-3-2 because they emit less than 0.551 pounds per hour of particulate: CRN-0104-03-23-HH16, CRN-2521-07-02-J17, CRN-0227-03-23-HH12, CRN-0041-06-17-V25, CRN-0041-07-17-V25, CRN-0041-08-17-V25, the mixing and pouring equipment located in building 200, and the explosive bomb loading operation-screening and weighing aluminum powder.

326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-3, the PM emissions from the boilers listed below, which were existing and in operation or which received permits to construct prior to September 21, 1983, shall not exceed 0.05 pounds per million Btu heat input (lb/MMBtu) for each boiler. This limit was established in the original Title V permit, T101-7341-00005.

(1) Natural gas-fired boilers, constructed prior to September 21, 1983, including:
(i) one boiler in each of the following buildings: 1, 2, 4, 7, 14, 18, 38, 45, 181, 224, 252, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074,

2167, 2506, 2516, 2517, 2693, 2720, 2721, 2748, 2749, 2889, 2931, 2987, 2993, and 3006 [326 IAC 6-2-3]

(ii) two boilers in building 2521 [326 IAC 6-2-3]

(iii) One (1) 1.63 MMBtu natural gas-fired boiler, constructed in July 1983, located in Building 74 [326 IAC 6-2-3]

(iv) the following boilers:

Unit ID	Building Location	Heat Input Capacity (MMBtu/hr)
CRN-0115-01-23-GG12	Building 115	16.75
CRN-0115-02-23-GG12	Building 115	6.20
CRN-0041-01-17-U26	Building 41	10.00
CRN-0041-02-17-U26	Building 41	6.90
CRN-0064-01-10-T27	Building 64	10.00
CRN-0140-01-17-Y25	Building 140	6.20
CRN-0140-02-17-Y25	Building 140	6.20
CRN-0149-01-10-S30	Building 149	6.70
CRN-0149-02-10-S30	Building 149	6.70
CRN-0199-01-23-JJ14	Building 199	17.50
CRN-0199-02-23-JJ14	Building 199	17.50
CRN-1819-01-17-Y23	Building 1819	3.35
CRN-1819-02-17-Y23	Building 1819	3.35
CRN-2517-01-10-T21	Building 2517	4.85
CRN-2517-02-10-T21	Building 2517	4.85
CRN-2523-01-9-K18	Building 2523	17.4
CRN-2523-02-9-K18	Building 2523	17.4
CRN-2692-01-17-W27	Building 2692	3.01

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

(a) The value of Pt (0.029) in section D.2.2 of the original Title V (T 101-7341-00005) was incorrect. 326 IAC 6-2-4(b) states, "As each new indirect heating facility is added to a plant Q will increase. As a result, the emission limitation for each progressively newer facility will be more stringent…" This value was revised in Minor Source Modification No.: T101-26844-00005 and Permit Modification No.: T101-26855-00005. However, the value calculated in these modifications did not account for the insignificant boilers. New values for Pt which include the insignificant boilers are calculated below:

Year	Unit ID	Heat Input Capacity (MMBtu/hr)	Total Q (MMBtu/hr)	PM/MMBtu $Pt = \frac{1.09}{Q^{0.26}}$
1983 before Sept. 21	-	-	164.86	-
1983 after Sept. 21	Insignificant boilers in Bldgs. 7, 74, 2521	1.63+10+10 = 21.63	186.49	0.28
1984	CRN-0128-02-17-W25, Insignificant boilers in Bldgs. 5,36, 2694,2807	6.2+10+10+ 10+10+10= 56.2	242.69	0.26

Year	Unit ID	Heat Input Capacity (MMBtu/hr)	Total Q (MMBtu/hr)	PM/MMBtu $Pt = \frac{1.09}{Q^{0.26}}$
1985	CRN-0115-03-23-GG12, CRN-2674-01-00-0001, CRN-2674-02-00-0001, Insignificant boilers in Bldgs. 66,2035,2036,	16.75 +8.40 +8.40 +10+10+10 +10 = 73.55	316.24	0.24
1986	Insignificant boilers in Bldgs. 34,40,47,77,363,365, 3149	10+10+10+ 10+10+10+ 10 =70	386.24	0.23
1987	CRN-2737-01-12-M41, CRN-2737-02-12-M14, CRN-2737-03-12-M41, Insignificant boilers in Bldgs. 366,3168,3188,	12.50 +12.50 + 12.50+10+ 10+10 = 67.50	453.74	0.22
1989	CRN-0150-01-17-CC23, CRN-0150-03-17-CC23, Insignificant boilers in Bldgs. 364,2045,3173	25.20 + 25.20 +10+10+10 +10= 90.40	544.14	0.21
1990	Insignificant boilers in Bldgs. 39,3239,	10+10+10= 30	574.14	0.21
1991	Insignificant boilers in Bldgs. 8,2902,	1.275+1.275 +10 =12.55	586.69	0.21
1992	CRN-3234-02-17-U26, CRN-3234-03-17-U26, Insignificant boilers in Bldgs. 10,3233,3234	8.40 +8.40+10+ 10+10 = 46.80	633.49	0.20
1993	Insignificant boilers in Bldgs. 2963,3235,3241,3243, 3250,3330N,3330S, 3330C	0.1+10+10+ 10+10+10+ 10+10+10+ 10+10+10+ 10+10+10+ 10+10 = 160.1	793.59	0.19
1994	4 Insignificant boilers in Bldg. 3251	10+10+10+ 10 = 40	833.59	0.19
1995	Insignificant boilers in Bldgs. 2995, 3168, 3284,3287,	0.1+ 10+10+10+ 10+10 = 50.1	883.69	0.19
1996	Insignificant boilers in Bldgs. 3285,3291	1.632+1.632 + 10=13.264	884.95	0.19

Year	Unit ID	Heat Input Capacity (MMBtu/hr)	Total Q (MMBtu/hr)	PM/MMBtu $Pt = \frac{1.09}{Q^{0.26}}$
1997	CRN-0128-01-17-W25, CRN-0128-03-17-W25	16.75 + 16.75 = 33.50	918.45	0.18
1998	Insignificant boiler in Bldgs. 3319	10	928.45	0.18
1999	CRN-0180-01-17-W22 CRN-0180-02-17-W22, Insignificant boilers in Bldgs. 180, 3324	4.20 + 4.20 +1.3 + 1.3 + 10 = 21.00	949.45	0.18
2000	Insignificant boiler in Bldgs. 2518	10	959.45	0.18
2001	Insignificant boilers in Bldgs. 180,3334	1.4+10=11.4	970.85	0.18
2002	Insignificant boilers in Bldgs. 2084, 3339	0.1+ 10 =10.1	980.95	0.18
2004	Insignificant boilers in Bldgs. 3325,3333	10+10 = 20	1000.95	0.18
2008	CRN-0041-03-17-U26	6.9	1007.85	0.18

This limitation was calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and
Q = total source heat input capacity (MMBtu/hr)

326 IAC 7-1.1-1 (Sulfur Dioxide Emissions Limitations)
Pursuant to 326 IAC 7-1.1-1, the requirements of 326 IAC 7-1.1-2 apply to emission units with a potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. Each of the boilers listed below is subject to this rule. Pursuant to 326 IAC 7-1.1-2, the following boilers shall each be limited to five tenths (0.5) pounds of sulfur dioxide (SO_2) per million Btu when combusting distillate oil

Unit Description	Unit ID	Building Location
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0199-01-23-JJ14	Building 199
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0199-02-23-JJ14	Building 199
Johnston natural gas or fuel oil boiler	CRN-2523-01-9-K18	Building 2523
Johnston natural gas or fuel oil fired boiler	CRN-2523-02-9-K18	Building 2523
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0115-03-23-GG12	Building 115
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0128-03-17-W25	Building 128

Unit Description	Unit ID	Building Location
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0150-01-17-CC23	Building 150
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0150-03-17-CC23	Building 150
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-2737-01-12-M41	Building 2737
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-2737-02-12-M41	Building 2737
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-2737-03-12-M41	Building 2737

326 IAC 8-1-7 and 326 IAC 8-1-5 (Military Specifications and Site-Specific RACT Plan)
As alternative to complying with the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating) the source requested to comply with a site-specific Reasonably Available Control Technology (RACT) plan (326 IAC 8-1-5) and military specifications (326 IAC 8-1-7) for the following emissions units:

Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of one hundred twenty (120) units per hour, consisting of the following units:

(1) CRN-2728-01-12-N42, located in Building 2728, constructed in 1999;
(2) CRN-2728-02-12-N42, located in Building 2728, constructed in 1999;
(3) CRN-2728-03-12-N42, located in Building 2728, constructed in 1999.

As such, emissions from these units shall be limited to 5.45 pounds of VOCs per gallon of coating less water, for air dried coatings, averaged on a daily basis for each paint booth.

326 IAC 8-2-9 (Miscellaneous Metal Coating)
Pursuant to 326 IAC 8-2-1(a)(2), the requirements of 326 IAC 8-2-9 apply to facilities as described below which were constructed after November 1, 1980, located in any county, and which have potential emissions of 25 tons or greater per year of VOC. Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-9 also apply to facilities as described below which were constructed after July 1, 1990, located in any county, and which have actual emissions of greater than 15 pounds of VOC per day before add-on controls.

The requirements of 326 IAC 8-2-9 apply to the surface coating of the following:

(1) Large and small farm machinery.
(2) Small household appliances.
(3) Office equipment.
(4) Industrial machinery.
(5) Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of major groups #33, #34, #35, #36, #37, #38, and #39.

The requirements of 329 IAC 8-2-9 are applicable to the following surface coating booths because each booth was constructed after July 1, 1990, the source has a SIC code of 3483, which is one of the specified SIC codes in this rule, and the actual emissions of VOCs from

each metal surface coating operation is greater than the 15 pounds per day applicability threshold.

(1) CRN-3234-09-17-U26, located in Building 3234, constructed in 1994;
(2) CRN-3234-10-17-U26, located in Building 3234, constructed in 1994;
(3) CRN-3234-15-17-U26, located in Building 3234, constructed in 1994;
(4) CRN-0227-01-23-HH12, located in Building 227, constructed prior to 1991;
(5) CRN-0227-02-23-HH12, located in Building 227, constructed prior to 1991;
(6) CRN-2805-03-23-GG19, located in Building 2805, constructed in 2006;
(7) CRN-0106-03-23-HH13, located in Building 106, constructed in 2005; and
(8) CRN-0106-04-23-PBS1, located in Building 106, constructed in 2007.

The requirements of 326 IAC 8-2-9 do not apply to the following surface coating booths because each booth was constructed before the rule applicability date of November 1, 1980:

(1) CRN-0136-01-17-Z26;
(2) CRN-0169-01-24-EE22;
(3) CRN-2520-01-17-Y26;
(4) CRN-0198-01-23-II15;

Additionally, the following surface coating booths, used for metal coating operations, are not subject to the requirements of 326 IAC 8-2-9 because each booth was constructed after November 1, 1980 and has a potential to emit of VOCs of less than the 25 tons per year.

(1) CRN-0174-01-24-FF21, located in Building 174, constructed in 1986;
(2) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983;
(3) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983;
(4) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980;
(5) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980;
(6) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980;
(7) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980;
(8) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986;
(9) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986;
(10) CRN-0155-04-17-BB25, located in Building 155, constructed in 1986;
(11) CRN-3168-02-17-V28, located in Building 3168, constructed in 1988;
(12) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983.

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
The requirements of 326 IAC 8-1-6 are applicable to facilities constructed after January 1, 1980, are not regulated elsewhere in 326 IAC 8, and which have the potential to emit of 25 tons per year or more of VOCs. None of the emission units at this source are subject to the requirements of this rule because either the potential to emit from a facility is less than 25 tons of VOC per year or the emissions of VOCs are enforceably limited to less than the 25 tons per year applicability threshold, prior to controls. Therefore, the requirements of 326 IAC 8-1-6 do not apply to any facilities at this source.

The following limits have been included in the permit to render 326 IAC 8-1-6 not applicable:

(a) The total number of batches from the flare manufacturing in Buildings 2504 and 145 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance determined at the end of each month. VOC emissions shall not exceed 0.015 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

(b) The total number of batches from the flare manufacturing in Building 198 shall be limited to less than 833 batches per consecutive twelve (12) month period, with compliance

determined at the end of each month. VOC emissions shall not exceed 0.015 tons/batch and the maximum weight of each batch shall not exceed 60 pounds.

Compliance with the above limits combined with VOC emissions from P02 (Building 3345), the generator which powers P02 , and P01(Building 3339), shall limit the VOC emissions from this modification to less than 40 tons per year and limit the VOC emissions from Buildings 2504, 145, and 198 to less than 25 tons per year and render 326 IAC 2-2 and 326 IAC 8-1-6 not applicable to the flare manufacturing processes in Buildings 2504 and 145; and 198.

326 IAC 8-3-2 Volatile Organic Compounds (Cold Cleaner Operation) and 326 IAC 8-3-5 Volatile Organic Compounds (Cold Cleaner Degreaser Operation and Control)
326 IAC 8-3-2 and 326 IAC 8-3-5 apply to the insignificant degreasing operations.

326 IAC 8-4-6 (Gasoline Dispensing Facilities)
Pursuant to 326 IAC 8-4-1(e), the requirements of 326 IAC 8-4-6 apply to any gasoline storage tank installed after July 1, 1989, at a gasoline dispensing facility with monthly gasoline throughputs of greater than 10,000 gallons. The two above ground gasoline storage tanks (CRN-3280-02-17-X23 and CRN-3280-01-17-X23), which were constructed in 1995 and each have gasoline throughputs greater than 10,000 gallons per month, are subject to the requirements of 326 IAC 8-4-6.

326 IAC 8-4-9 (Leaks from transports and vapor collection systems; records),
Pursuant to 326 IAC 8-4-9 (a), 326 IAC 8-4-9 applies to all vapor balance systems and vapor control systems at sources subject 326 IAC 8-4-6.

Testing Requirements

The Permittee is required to conduct the following performance tests:

(a) Within 90 days after issuance of this Part 70 permit or operation of the detonation chamber, the Permittee shall conduct a one-time stack test to verify the emission factor used to determine the potential CO emissions from the detonation chamber baghouse utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within 90 days after issuance of this Part 70 permit or operation of the detonation chamber, in order to demonstrate compliance with Conditions D.13.1 and D.13.3, the Permittee shall test for PM, and PM-10 on the detonation chamber baghouse utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(c) The Permittee is required to retest all vapor collection and control systems for vapor leakage and blockage, and successfully pass the test, at least every five (5) years or upon major system replacement or modification. A major system modification is considered to be replacing, repairing, or upgrading seventy five percent (75%) or more of vapor collection and control system of the facility.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance

Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The barrel blast system and the vertical descaling machine have applicable compliance determination conditions as specified below:

(1) Visible emission notations of the stack exhausts for stacks ABS1 and ABS2.

(2) The Permittee shall record the pressure drop across the baghouses used in conjunction with the barrel blast system and the vertical descaling machine, once per day when the barrel blast system or the vertical descaling machine is in operation. The normal range of the pressure drop across these baghouses is 2.0 to 8.0 inches of water.

These monitoring conditions are necessary because the baghouses for the barrel blast system and the vertical descaling machine must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70) and to render 326 IAC 2-2 (PSD) not applicable.

(b) The boilers in permit Section D.2 have applicable compliance determination conditions as specified below:

Unit Description	Unit ID	Building Location
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0199-01-23-JJ14	Building 199
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0199-02-23-JJ14	Building 199
Johnston natural gas or fuel oil boiler	CRN-2523-01-9-K18	Building 2523
Johnston natural gas or fuel oil fired boiler	CRN-2523-02-9-K18	Building 2523
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0115-03-23-GG12	Building 115
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0128-03-17-W25	Building 128

Unit Description	Unit ID	Building Location
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0150-01-17-CC23	Building 150
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-0150-03-17-CC23	Building 150
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-2737-01-12-M41	Building 2737
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-2737-02-12-M41	Building 2737
Cleaver Brooks natural gas or fuel oil fired boiler	CRN-2737-03-12-M41	Building 2737

Visible emission notations of the following boiler stack exhausts shall be performed once per day during normal daylight operations when combusting No. 2 fuel oil only. A trained employee shall record whether emissions are normal or abnormal.

These monitoring conditions are necessary because the boilers must operate properly to ensure compliance with 326 IAC 6-2-3 or 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) and 326 IAC 2-7 (Part 70).

(c) The carpentry shops in Section D.3 of this permit have applicable compliance determination conditions as specified below:

Visible emission notations of the cyclone stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

These monitoring conditions are necessary because the cyclones for the carpentry shops must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-7 (Part 70), and 40 CFR Part 64 (Continuous Assurance Monitoring).

Note: The requirements of 40 CFR Part 64 (Continuous Assurance Monitoring) are applicable to only two (2) of the three (3) carpentry shops (CRN-0056-04-10-T21 and CRN-0224-02-23-HH12).

(d) The paint booths in Section D.4 of this permit have applicable compliance determination conditions as specified below:

(1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28). Daily inspections shall be performed for the water walls to verify the level where surface agitation indicates impact of the air flow.

(2) To monitor the performance of the water walls and wet walls and the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation (except for booth

CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28).

(3) Monthly inspections shall be performed of the coating emissions from the stack (except for booth CRN-0198-01-23-II15, exhausting to vent II15, and CRN-3168-02-17-V28, exhausting to vent V28) and the presence of overspray on the rooftops and the nearby ground.

These monitoring conditions are necessary because the dry filters or water walls for the paint booths must operate properly to ensure compliance with 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70) not applicable.

(e) The mixing and pouring equipment in Section D.6 of this permit have applicable compliance determination conditions as specified below:

(1) Visible emission notations of the wet scrubber stack exhaust from the mixing and pouring operations shall be performed once per day during normal daylight operations.

(2) The Permittee shall monitor and record the pressure drop of the scrubber once per day. The normal range of the pressure drop across the scrubber is 2.0 to 6.0 inches of water.

These monitoring conditions are necessary because the wet scrubber for the mixing and pouring equipment must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70).

(f) The screening and weighing aluminum powder operations, screening and weighing TNT operations, and the melting and mixing aluminum powder and TNT operations in Section D.7 of this permit have applicable compliance determination conditions as specified below:

(1) Visible emission notations of the baghouse and wet scrubber stack exhausts from the explosive bomb loading operations shall be performed once per day during normal daylight operation.

(2) The Permittee shall monitor and record the pressure drop of the wet scrubbers, used in conjunction with the screening and weighing of TNT in Building 153 and the melting and mixing of aluminum powder and TNT in Building 152, once per day. The normal range of the pressure drop of the wet scrubbers is 2.0 to 8.0 inches of water.

(3) The Permittee shall record the pressure drop across the baghouse used in conjunction with the explosive bomb loading operation (screening and weighing aluminum powder in Building 2714), at least once per day when the Explosive Bomb Loading Operation (screening and weighing aluminum powder in Building 2714) is in use. The normal range of this baghouse is 2.0 to 6.0 inches of water.

These monitoring conditions are necessary because the baghouse for the screening and weighing aluminum powder operations and the wet scrubbers for the screening and weighing TNT operations and the melting and mixing aluminum powder and TNT operations must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70).

(g) The rotary kiln in Section D.8 of this permit has applicable compliance determination conditions as specified below:

Visible emission notations of the variable throat venturi scrubber stack exhaust from the rotary kiln furnace shall be performed once per day during normal daylight operations.

This monitoring condition is necessary because the venturi scrubber for the rotary kiln must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70).

(h) The containment chamber in Building 2167, the test cell in Building 3235, the battery dissection fume hood in Building 3235, and the containment chamber in Building 142 have applicable compliance determination conditions as specified below:

(1) Visible emission notations of the vertical packed-bed tower, battery dissection fume hood and baghouse stack exhausts from the testing operations shall be performed once per day during normal daylight operations.

(2) The Permittee shall record the pressure drop across the baghouse used in conjunction with the containment chamber in Building 142, and the baghouses used in conjunction with the flare testing operations in Buildings 2869 and 366 at least once per day when the testing units are in operation. The normal range of the pressure drop across these baghouses is 2.0 to 6.0 inches of water.

These monitoring conditions are necessary because the containment chamber in Building 2167, the vertical packed-bed tower for the test cell in Building 3235, the battery dissection fume hood, and the baghouse for the containment chamber in Building 142 must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70).

(i) The contained detonation chamber, identified as P01, located in Building 3339, has applicable compliance determination conditions as specified below:

(1) Visible emission notations of the CDC baghouse stack exhaust shall be performed once per day during normal daylight operations when the CDC is in operation.

(2) The Permittee shall record the pressure drop across the baghouse used in conjunction with the contained detonation chamber, at least once per day when the contained detonation chamber is in operation. The normal range of this baghouse is 0.01 to 4.0 inches of water.

These monitoring conditions are necessary because the baghouse for the contained denotation chamber must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70) and to render 326 IAC 2-2 (PSD) not applicable.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 15, 2005.

Conclusion

The operation of this military base where ammunition and other military ordnance are manufactured, stored, and disposed shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No.: T101-21308-00005.

Appendix A: Emission Calculation
Emissions Summary

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP/ Timothy R. Pettifor
Date: 07/29/08

Uncontrolled Potential to Emit (tons/year)

	Emissions Generating Activity																
Pollutant	Boilers (Natural Gas Combustion Only)	Boilers (Natural Gas and No. 2 Fuel Oil Combustion)	Surface Coating Operations (Other)	Surface Coating (CRN-0106-03-23-HH13)	Surface Coating (Bomb Refinishing and Projectile Renovation CRN-2728-01-12-N42, CRN-2728-02-12-N42, CRN-2728-03-	Surface Coating (CRN-0106-04-23-PBS1)	Surface Coating (CRN-2805-03-23-GG19)	Abrasive Blasting	Carpentry Shops	Diesel Generators	Natural Gas Furnaces	Extruder Processing Line	Detonation Chamber (P01)	Mobile Plasma Treatment System (MPTS) and Generator	Flare Manufacturing Processes (Buildings 2504, 145, and 198) & Flare Testing (Buildings 2869 & 366)	APE 1236 Rotary Kiln Incinerator P03	**Total**
PM	0.28	20.27	139.77	8.71	23.71	4.38	3.86	430.24	458.60	0.62	1.79	0.0014	985.50	2.93	13.40	35.13	2,129.19
PM-10	1.12	20.27	139.77	8.71	23.71	4.38	3.86	430.24	458.60	0.62	7.14	0.0014	985.50	2.93	13.40	35.13	2,135.38
SO_2	0.09	719.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.89	0.56	0.00	0.16	96.10	0.00	4.90	843.46
NOx	14.67	202.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.17	93.95	0.00	27.92	123.65	0.00	120.89	590.00
VOC	0.81	7.75	360.87	18.98	58.57	21.77	6.63	0.00	0.00	0.10	5.17	2.02	0.36	123.65	14.04	0.33	621.04
CO	12.33	118.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54	78.92	0.00	186.59	14.17	0.00	0.00	411.91
total HAPs	0.28	2.66	66.20	2.11	4.60	14.31	0.00	0.00	0.00	0.13	1.77	0.95	38.48	0.29	11.23	0.33	143.33
worst-case single HAP	0.26 (Hexane)	2.54 (Hexane)	37.40 (Xylene)	1.19 (MIBK)	2.79 (Xylene)	7.15 (Xylene)	0.00	0.00	0.00	0.04 (Selenium)	1.69 (Hexane)	0.76 (Hexane)	37.78 (Manganese)	0.28 (HCl)	11.23 (Hexane)	0.11 (Dibutylphthalate, 2,4, Dinitrotoluene, or Hexachlorobenzene)	37.78 (Manganese)

Total emissions based on rated capacity at 8,760 hours/year without controls and limitations.

Controlled/Limited Potential to Emit (tons/year)

	Emissions Generating Activity																
Pollutant	Boilers (Natural Gas Combustion Only)	Boilers (Natural Gas and No. 2 Fuel Oil Combustion)	Surface Coating Operations (Other)	Surface Coating (CRN-0106-03-23-HH13)	Surface Coating (Bomb Refinishing and Projectile Renovation CRN-2728-01-12-N42, CRN-2728-02-12-N42, CRN-2728-03-	Surface Coating (CRN-0106-04-23-PBS1)	Surface Coating (CRN-2805-03-23-GG19)	Abrasive Blasting	Carpentry Shops	Diesel Generators	Natural Gas Furnaces	Extruder Processing Line	Detonation Chamber (P01)	Mobile Plasma Treatment System (MPTS) and Generator	Flare Manufacturing Processes (Buildings 2504, 145, and 198) & Flare Testing (Buildings 2869 & 366)	APE 1236 Rotary Kiln Incinerator P03	**Total**
PM	0.28	20.27	6.99	1.74	1.19	0.66	0.19	1.42	4.57	0.62	1.79	0.0014	0.51	0.60	0.07	0.35	41.24
PM-10	1.12	20.27	6.99	1.74	1.19	0.66	0.19	1.42	4.57	0.62	7.14	0.0014	0.51	0.60	0.07	0.35	47.43
SO_2	0.09	719.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.89	0.56	0.00	0.09	19.75	0.00	1.62	763.74
NOx	14.67	202.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.17	93.95	0.00	< 14.45	< 25.41	0.00	< 39.90	397.40
VOC	0.81	7.75	360.87	18.98	< 40	21.77	6.63	0.00	0.00	0.10	5.17	2.02	0.19	1.17	< 38.60	0.11	504.06
CO	12.33	118.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54	78.92	0.00	< 96.56	< 2.91	0.00	0.35	310.97
total HAPs	0.28	2.66	66.20	2.11	4.60	14.31	0.00	0.00	0.00	0.13	1.77	0.95	0.02	0.06	< 50.00	0.11	143.19
worst-case single HAP	0.26 (Hexane)	2.54 (Hexane)	37.40 (Xylene)	1.19 (MIBK)	2.79 (Xylene)	7.15 (Xylene)	0.00	0.00	0.00	0.04 (Selenium)	1.69 (Hexane)	0.76 (Hexane)	0.02 (Manganese)	0.06 (HCl)	< 20.00 (Hexane)	0.03 (Dibutylphthalate, 2,4, Dinitrotoluene, or Hexachlorobenzene)	37.38 (Xylene)

Total emissions based on rated capacity at 8,760 hours/year, after enforceable controls and limitations.

Appendix A: Emission Calculation
HAP's Emissions Summary

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP/ Timothy R. Pettifor
Date: 07/29/08

Uncontrolled Potential to Emit (tons/year)

	Emissions Generating Activity																
Pollutant	Boilers (Natural Gas Combustion Only)	Boilers (Natural Gas and No. 2 Fuel Oil Combustion)	Surface Coating Operations (Other)	Surface Coating (CRN-0106-03-23-HH13)	Surface Coating (Bomb Refinishing and Projectile Renovation CRN-2728-01-12-N42, CRN-2728-02-12-N42, CRN-2728-03-	Surface Coating (CRN-0106-04-23-PBS1)	Surface Coating (CRN-2805-03-23-GG19)	Abrasive Blasting	Carpentry Shops	Diesel Generators	Natural Gas Furnaces	Extruder Processing Line	Detonation Chamber (P01)	Mobile Plasma Treatment System (MPTS) and Generator	Flare Manufacturing Processes (Buildings 2504, 145, and 198) & Flare Testing (Buildings 2869 & 366)	APE 1236 Rotary Kiln Incinerator P03	**Total**
Xylene	0.00	0.00	37.40	0.54	2.79	7.15	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.00	0.00	0.00	47.88
Toluene	4.99E-04	4.79E-03	4.00	0.38	0.43	1.08	0.00	0.00	0.00	0.00	3.19E-03	0.0000	0.00	0.00	0.00	7.25E-05	5.90
Ethyl Benzene	0.00	0.00	6.20	0.00	0.35	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.17
Bis Phthalate	0.00	0.00	18.60	0.00	1.04	0.00	0.00	0.00	0.00	0.00	1.69	0.00	0.00	0.00	0.00	2.10E-04	21.33
Hexane	0.26	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.00	0.00	11.23	0.00	14.79
MIBK	0.00	0.00	0.00	1.19	0.00	5.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.63
Selenium	0.00	1.63E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05E-02	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Nickel	3.08E-04	2.96E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.10E-03	1.97E-03	0.00	0.00	0.00	0.00	0.00	0.01
Manganese	5.58E-05	6.52E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62E-02	3.57E-04	0.00	37.78	2.10E-04	0.00	0.00	37.80
HCL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.83E-01	0.00	0.00	0.28
Napthalene	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00E-03	1.20E-02
Dibutylphthalate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05E-01	1.05E-01
2,4 Dinitrotoluene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05E-01	1.05E-01
Hexachlorobenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05E-01	1.05E-01
Formaldehyde	0.01	1.06E-01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	1.88E-01
Mercury	0.00	3.26E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.10E-03	0.00	0.00	0.00	3.94E-04	0.00	0.00	0.01
Lead	7.34E-05	9.78E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.43E-02	4.70E-04	0.00	0.42	1.05E-03	0.00	0.00	0.45
Dioxins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75E-09	0.00	0.00	1.75E-09
Cadmium	1.61E-04	1.55E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.10E-03	1.03E-03	0.00	0.00	1.05E-03	0.00	0.00	1.19E-02
Arsenic	0.00	4.34E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08E-02	0.00	0.00	0.00	8.32E-04	0.00	0.00	1.21E-02
Beryllium	0.00	3.26E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.10E-03	0.00	0.00	0.00	8.32E-04	0.00	0.00	9.26E-03
Chromium	2.05E-04	1.97E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.10E-03	1.32E-03	0.00	0.28	8.32E-04	0.00	0.00	0.29
Benzene	3.08E-04	2.96E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.97E-03	0.00	0.00	0.00	0.00	5.89E-03	1.11E-02
Dichlorobenzene	1.76E-04	1.69E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00E-03
Carbon Tetrachloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.68E-05	3.68E-05
Chlorobenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.47E-05	5.47E-05
Chloroform	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68E-04	1.68E-04
Methylene Chloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.99E-05	9.99E-05
Phenol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84E-03	2.84E-03
Trichloroethylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42E-04	2.42E-04
Tetrachloroethylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37E-05	1.37E-05
Total	0.28	2.66	66.20	2.11	4.60	14.31	0.00	0.00	0.00	0.13	1.77	0.95	38.48	0.29	11.23	0.33	143.3

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MMBtu/hr <100
Small Boilers

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr	
33.50	2 - Boilers (16.75 MMBtu/hr each)	293.46	
33.50	**Total MMBtu/hr**	**293.46**	**Total MMCF/yr**

	Pollutant					
	PM*	PM-10*	SO_2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.60	100.00 **see below	5.50	84.00
Potential Emissions in tons/yr	0.28	1.12	0.09	14.67	0.81	12.33

*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Potential Emissions (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See next page for HAP emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MMBtu/hr <100
Small Boilers
HAP Emissions

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03
Potential Emissions in tons/yr	3.08E-04	1.76E-04	1.10E-02	2.64E-01	4.99E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03
Potential Emissions in tons/yr	7.34E-05	1.61E-04	2.05E-04	5.58E-05	3.08E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAP emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Combustion Emissions
MMBtu/hr <100
Small Boilers

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr	
33.50	2- Boilers (16.75 MMBtu/hr each)	293.46	
24.80	4 - Boilers (6.2 MMBtu/hr each)	217.25	
50.40	2 - Boilers (25.2 MMBtu/hr each)	441.50	
35.00	2 - Boilers (17.5 MMBtu/hr each)	306.60	
6.70	2 - Boilers (3.35 MMBtu/hr each)	58.69	
3.01	1 - Boiler (3.01 MMBtu/hr)	26.37	
37.50	3 - Boilers (12.5 MMBtu/hr each)	328.50	
37.60	4- Boilers (8.4 MMBtu/hr each)	329.38	
20.00	2 - Boilers (10.0 MMBtu/hr each)	175.20	
6.90	1 - Boiler (6.9 MMBtu/hr)	60.44	
13.40	2 - Boilers (6.7 MMBtu/hr each)	117.38	
8.40	2 - Boilers (4.2 MMBtu/hr each)	73.58	
9.70	2 - Boilers (4.85 MMBtu/hr each)	84.97	
34.80	2 - Boilers (17.4 MMBtu/hr each)	304.85	
321.71	**Total MMBtu/hr**	**2818.18**	**Total MMCF/yr**

1. Natural Gas Emissions (Primary Fuel):

	Pollutant					
	PM*	PM-10*	SO_2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.60	100.00 **see below	5.50	84.00
Potential Emissions in tons/yr	2.68	10.71	0.85	140.91	7.75	118.36

*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Potential Emissions (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

2. No. 2 Fuel Oil Emissions (Back-up Fuel):

Total Input Capacity (See Above) MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
321.71	20274.67	0.5

	Pollutant					
	PM*	PM-10**	SO_2	NOx	VOC	CO
Emission Factor in lb/kgal	2.00	2.00	71.00 *(142.0S)*	20.00	0.34	5.00
Potential Emissions in tons/yr	20.27	20.27	719.75	202.75	3.45	50.69

Methodology
1 gallon of No. 2 Fuel Oil has a heating value of 139,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.139 MMBtu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
**No data was available for PM-10. PM-10 is assumed equal to PM.
Potential Emissions (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Notes:
See next page for HAP emissions calculations.
Worst-case potential VOC and CO emissions are when burning natural gas for the boilers. Worst-case potential PM, PM-10, SO_2, and NOx emissions are when burning No. 2 fuel oil for the

Appendix A: Emissions Calculations
Combustion Emissions
MMBtu/hr <100
Small Boilers
HAP Emissions

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

1. Natural Gas Emissions (Primary Fuel):

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03
Potential Emissions in tons/yr	2.96E-03	1.69E-03	1.06E-01	2.54E+00	4.79E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03
Potential Emissions in tons/yr	7.05E-04	1.55E-03	1.97E-03	5.35E-04	2.96E-03

Methodology
Potential Emissions (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
The five highest organic and metal HAPs emission factors are provided above.
Additional HAP emission factors are available in AP-42, Chapter 1.4.

2. No. 2 Fuel Oil Emissions (Back-up Fuel):

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/MMBtu	4.00E-06	3.00E-06	3.00E-06	3.00E-06	9.00E-06
Potential Emissions in tons/yr	4.34E-04	3.26E-04	3.26E-04	3.26E-04	9.78E-04

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/MMBtu	3.00E-06	6.00E-06	3.00E-06	1.50E-05
Potential Emissions in tons/yr	3.26E-04	6.52E-04	3.26E-04	1.63E-03

Methodology
No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8,760 hrs/yr / 2,000 lbs/ton

Notes:
Worst-case potential single HAP and combined HAP emissions are when burning natural gas for the boilers.

Appendix A: Emissions Calculations
VOC, HAP, and Particulate Emissions
From Surface Coating Operations - Not Specified Elsewhere (20 Booths)**

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP/ Timothy R. Pettifor
Date: 07/29/08

1. VOC and PM Emissions:

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gallons of material (gals/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	PM Control Efficiency (%)*	Particulate Potential (after Controls) (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Enamel OD - As Applied	9.09	53.68%	0.00%	53.68%	0.00%	36.80%	0.76	4.88	4.88	3.69	88.51	16.15	6.97	95%	0.35	N/A	50%
Primer - As Applied	9.41	57.92%	0.00%	57.92%	0.00%	33.30%	0.76	5.45	5.45	4.12	98.87	18.04	6.55	95%	0.33	N/A	50%
Enamel Yellow - As Applied	9.22	54.24%	0.00%	54.24%	0.00%	34.30%	0.76	5.00	5.00	3.78	90.78	16.57	6.99	95%	0.35	N/A	50%
Potential Emissions (tons/yr) =										**4.12**	**98.87**	**18.04**	**6.99**		**0.35**		
Potential Emissions (tons/yr) for twenty (20) booths =										**82.39**	**1977.37**	**360.87**	**139.77**		**6.99**		

Methodology
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) x Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) x Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)
Particulate Potential Tons per Year = Gallons of material (gal/hr) x Density (lbs/gal) x (1- Weight % Volatiles) x (1-Transfer efficiency) x (8,760 hrs/yr) x (1 ton/2,000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) x Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
* Assumed a PM control efficiency of 95% for dry filers.

2. HAP Emissions:

Material	Density (Lbs/Gal)	Gallons of Material (gal/hour)	Weight % of Toluene	Weight % of Xylene	Weight % of Ethyl Benzene	Weight % of Bis Phthalate	PTE of Toluene (tons/yr)	PTE of Xylene (tons/yr)	PTE of Ethyl Benzene (tons/yr)	PTE of Bis Phthalate (tons/yr)
Enamel OD - As Applied	9.09	0.76	0.00%	1.00%	0.00%	0.00%	0.00	0.30	0.00	0.00
Primer - As Applied	9.41	0.76	0.64%	6.00%	1.00%	3.00%	0.20	1.87	0.31	0.93
Enamel Yellow - As Applied	9.22	0.76	0.55%	1.00%	0.00%	0.00%	0.17	0.31	0.00	0.00
Potential Emissions (tons/yr) =							**0.20**	**1.87**	**0.31**	**0.93**

Worst-Case Single HAP Emissions (tons/yr) = **1.87 (xylene)**
Worst-Case Total HAP Emissions (tons/yr) = **3.31**
Worst-Case Single HAP Emissions (tons/yr) for twenty booths = **37.4(xylene)**
Worst-Case Total HAP Emissions (tons/yr) for twenty booths = **66.20**

Methodology
HAP emission rate (tons/yr) = Density (lb/gal) x Gallons of Material (gal/hr) x Weight % HAP x 8,760 hrs/yr x 1 ton/2,000 lbs

**Surface coating booth CRN-3168-02-17-V28 is not included above. The potential emissions of VOC for this booth are less than 25 tons per year.

Appendix A: Emissions Calculations
VOC, HAP, and Particulate Emissions
From Surface Coating Operations - Bomb Refinishing Line and Projectile Renovation Operations

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

1. VOC and PM Emissions:

Emission Unit ID	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gallons of material (gals/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	PM Control Efficiency (%)*	Particulate Potential (after Controls) (ton/yr)	lb VOC/gal solids	Transfer Efficiency
CRN-2728-01-12-N42	Enamel OD - As Applied	9.09	53.68%	0.00%	53.68%	0.00%	36.80%	0.84	4.88	4.88	4.09	98.10	17.90	7.72	95%	0.39	N/A	50%
CRN-2728-02-12-N42	Primer - As Applied	9.41	57.92%	0.00%	57.92%	0.00%	33.30%	0.84	5.45	5.45	4.57	109.58	20.00	7.26	95%	0.36	N/A	50%
CRN-2728-03-12-N42	Enamel Yellow - As Applied	9.22	54.24%	0.00%	54.24%	0.00%	34.30%	0.94	5.00	5.00	4.72	113.23	20.66	8.72	95%	0.44	N/A	50%
Potential Emissions (tons/yr) =											**13.37**	**320.91**	**58.57**	**23.71**		**1.19**		

Methodology
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) x Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) x Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)
Particulate Potential Tons per Year = Gallons of material (gal/hr) x Density (lbs/gal) x (1- Weight % Volatiles) x (1-Transfer efficiency) x (8,760 hrs/yr) x (1 ton/2,000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) x Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
* Assumed a PM control efficiency of 95% for dry filers.

2. HAP Emissions:

Emission Unit ID	Material	Density (Lbs/Gal)	Gallons of Material (gal/hour)	Weight % of Toluene	Weight % of Xylene	Weight % of Ethyl Benzene	Weight % of Bis Phthalate	PTE of Toluene (tons/yr)	PTE of Xylene (tons/yr)	PTE of Ethyl Benzene (tons/yr)	PTE of Bis Phthalate (tons/yr)
CRN-2728-01-12-N42	Enamel OD - As Applied	9.09	0.84	0.00%	1.00%	0.00%	0.00%	0.00	0.33	0.00	0.00
CRN-2728-02-12-N42	Primer - As Applied	9.41	0.84	0.64%	6.00%	1.00%	3.00%	0.22	2.07	0.35	1.04
CRN-2728-03-12-N42	Enamel Yellow - As Applied	9.22	0.94	0.55%	1.00%	0.00%	0.00%	0.21	0.38	0.00	0.00
Potential Emissions (tons/yr) =								**0.43**	**2.79**	**0.35**	**1.04**

Worst-Case Single HAP Emissions (tons/yr) = **2.79**
Worst-Case Total HAP Emissions (tons/yr) = **4.60**

Methodology
HAP emission rate (tons/yr) = Density (lb/gal) x Gallons of Material (gal/hr) x Weight % HAP x 8,760 hrs/yr x 1 ton/2,000 lbs

Appendix A: Emission Calculations
VOCs and PM Emission Calculations
Surface Coating Operations

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Worst-Case Emissions for Surface Coating Booth PBS1

Coating Type	Emission Unit ID	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum Usage (gal/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Control Device	Control Efficiency (%)	Controlled Particulate Potential (ton/yr)
Primer	CRN-0106-04-23-PBS1	White Epoxy-Polyimide Primers (Component A + Component B)	7.64	53.93%	0.00%	53.93%	0.0%	46.07%	0.80	4.12	4.12	3.30	79.10	14.44	3.08	8.94	75%	Dry Filter	85%	0.46
Worst-Case (Primer) Emissions (tons/yr)														**14.44**	**3.08**					**0.46**

Coating Type	Emission Unit ID	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum Usage (gal/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Control Device	Control Efficiency (%)	Controlled Particulate Potential (ton/yr)
Topcoat	CRN-0106-04-23-PBS1	Polyurethanes	4.77	58.49%	0.00%	58.49%	0.0%	41.51%	0.60	2.79	2.79	1.67	40.18	7.33	1.30	6.72	75%	Dry Filter	85%	0.20
Worst-Case (Topcoat) Emissions (tpy)														**7.33**	**1.30**					**0.20**

Worst-Case Emissions (Primer + Topcoat) (tons/yr) =	**21.77**	**4.38**	**0.66**

Methodology

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) x Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) x Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)
Particulate Potential Tons per Year = Gallons of material (gal/hr) x Density (lbs/gal) x (1- Weight % Volatiles) x (1-Transfer efficiency) x (8,760 hrs/y
Pounds VOC per Gallon of Solids = (Density (lbs/gal) x Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
The source utilizes dry filters to control emissions of particulates. The control efficiency of the dry filters, for particulate control, has conservativel
been estimated at 85%.

Appendix A: Emission Calculations
HAP Emission Calculations
Surface Coating Operations

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Worst-Case HAP Emissions for Surface Coating Booth CRN-0106-04-23-PBS1

Material	Density (Lb/Gal)	Maximum Usage (gal/hour)	Weight % of Xylenes	Weight % of Ethyl Benzene	Weight % of Toluene	Weight % of Naphthalene	Weight % of MIBK	PTE of Xylenes (tons/yr)	PTE of Ethyl Benzene (tons/yr)	PTE of Toluene (tons/yr)	PTE of Naphthalene (tons/yr)	PTE of MIBK (tons/yr)
White Epoxy-Polyimide Primers (Component A + Component B)	7.64	0.80	26.70%	2.33%	0.00%	0.00%	8.16%	7.15	0.62	0.00	0.00	2.19
Polyurethanes	4.77	0.60	0.00%	0.00%	8.60%	0.11%	26.00%	0.00	0.00	1.08	0.01	3.26
Worst-Case Emissions (Primer + Topcoat) (tons/yr) =								**7.15**	**0.62**	**1.08**	**0.01**	**5.44**

Worst-Case Single HAP Emissions (tons/yr) = 7.15
Worst-Case Total HAP Emissions (tons/yr) = 14.31

Methodology

HAP emission rate (tons/yr) = Density (lb/gal) x Gallons of Material (gal/hr) x Weight % HAP x 8,760 hrs/yr x 1 ton/2,000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations (CRN-0106-03-23-HH13)

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

1. VOC and PM Emissions:

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gallons of material (gals/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	PM Control Efficiency (%)*	Particulate Potential (after Controls) (ton/yr)	lb VOC/gal solids	Transfer Efficiency**
Primer - As Applied	10.40	56.00%	23.20%	32.80%	0.00%	36.80%	0.56	3.41	3.41	1.91	45.85	8.37	3.93	80%	0.79	N/A	65%
Topcoat - As Applies	10.00	35.00%	0.00%	35.00%	0.00%	33.30%	0.48	3.50	3.50	1.68	40.32	7.36	4.78	80%	0.96	N/A	65%
Clean-up Solvent	7.42	100.00%	0.00%	100.00%	0.00%	34.30%	0.10	7.42	7.42	0.74	17.81	3.25	0.00	80%	0.00	N/A	65%
Potential Emissions (tons/yr) =										**4.33**	**103.97**	**18.98**	**8.71**		**1.74**		

Methodology
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) x Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) x Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)
Particulate Potential Tons per Year = Gallons of material (gal/hr) x Density (lbs/gal) x (1- Weight % Volatiles) x (1-Transfer efficiency) x (8,760 hrs/yr) x (1 ton/2,000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) x Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
* A PM control efficiency of 80% was assumed for the dry filers.
** HVLP application method is used in this booth. The transfer efficiency is from a HVLP document prepared by BINKS.

2. HAP Emissions:

Material	Density (Lbs/Gal)	Gallons of Material (gal/hour)	Weight % of Toluene	Weight % of Xylene	Weight % of MIBK	PTE of Toluene (tons/yr)	PTE of Xylene (tons/yr)	PTE of MIBK (tons/yr)
Primer - As Applied	10.40	0.56	0.00%	1.24%	1.00%	0.00	0.32	0.26
Topcoat - As Applies	10.00	0.48	0.00%	0.00%	4.45%	0.00	0.00	0.94
Clean-up Solvent	7.42	0.10	11.80%	6.77%	0.00%	0.38	0.22	0.00
Potential Emissions (tons/yr) =						**0.38**	**0.54**	**1.19**

Worst-Case Single HAP Emissions (tons/yr) = **1.19**
Worst-Case Total HAP Emissions (tons/yr) = **2.11**

Methodology
HAP emission rate (tons/yr) = Density (lb/gal) x Gallons of Material (gal/hr) x Weight % HAP x 8,760 hrs/yr x 1 ton/2,000 lbs

Appendix A: Emission Calculations
PM Emission Calculations
Abrasive Blasting Units

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP/Timothy R. Pettifor
Date: 07/29/08

Maximum Hours of Operation =
8,760

Emission Unit ID	Control Device	Control Efficiency (%)	Actual Hours Per Year	Abrasive Collected (lbs/yr)	Abrasive Used (lbs/yr)	Potential PM/PM-10 Emissions (before controls) (lbs/hr)	Potential PM/PM-10 Emissions (after controls) (lbs/hr)	Potential PM/PM-10 Emissions (before controls) (tons/yr)	Potential PM/PM-10 Emissions (after controls) (tons/yr)	Process Weight Rate (pounds/hr)
CRN-0104-03-23-HH16	Baghouse	99.90%	2,080		1,000	4.81E-01	4.81E-04	2.11	0.00	0.48
CRN-0106-02-23-HH13	Baghouse	99.90%	2,080		3,000	1.44E+00	1.44E-03	6.32	0.01	1.44
CRN-0227-03-23-HH12	Baghouse	99.90%	2,080		3,000	1.44E+00	1.44E-03	6.32	0.01	1.44
CRN-2521-07-02-J17	Baghouse	99.90%	2,080	36,000	36,036	1.73E+01	1.73E-02	75.88	0.08	17.33
CRN-2521-08-02-J17	Baghouse	99.90%	2,080	36,000	36,036	1.73E+01	1.73E-02	75.88	0.08	17.33
CRN-2521-09-2-J17	Baghouse	99.90%	2,080	36,000	36,036	1.73E+01	1.73E-02	75.88	0.08	17.33
CRN-3168-03-17-V28	Baghouse	99.90%	2,080		1,000	4.81E-01	4.81E-04	2.11	0.00	0.48
CRN-3234-14-17-U26	Baghouse	99.90%	2,080	36,000	36,036	1.73E+01	1.73E-02	75.88	0.08	17.33
CRN-0107-06-23-HH13	Baghouse	99.00%	8,760	30,660	31,010	3.54E+00	3.54E-02	15.51	0.16	960.00
CRN-0107-07-23-HH13	Baghouse	99.00%	8,760	183,960	185,712	2.12E+01	2.12E-01	92.86	0.93	2500.00
CRN-0041-06-17-V25	Baghouse	99.00%	2,080		1,000	1.14E-01	1.14E-03	0.50	0.01	0.11
CRN-0041-07-17-V25	Baghouse	99.00%	2,080		1,000	1.14E-01	1.14E-03	0.50	0.01	0.11
CRN-0041-08-17-V25	Baghouse	99.00%	2,080		1,000	1.14E-01	1.14E-03	0.50	0.01	0.11
PM/PM-10 Potential to Emit before Controls (tons/yr) =								**430.24**		
PM/PM-10 Potential to Emit after Controls (tons/yr) =									**1.42**	

Methodology
Uncontrolled PM and PM-10 emissions were conservatively estimated assuming that all abrasive used becomes particulate emissions.
Potential PM/PM-10 Emissions (before controls) (lbs/hr) = Abrasive Used (lbs/yr) / Actual Hours Per Year
Potential PM/PM-10 Emissions (after controls) (lbs/hr) = Abrasive Used (lbs/yr) / Actual Hours Per Year x (1 - Control Efficiency (%))

Potential PM/PM-10 Emissions (before controls) (tons/yr) = Abrasive Used (lbs/yr) / Actual Hours Per Year x Maximum Hours of Operation (hrs/yr) x (1 ton/2,000 lbs)

Potential PM/PM-10 Emissions (after controls) (tons/yr) = Abrasive Used (lbs/yr) / Actual Hours Per Year x Maximum Hours of Operation (hrs/yr) x (1 ton/2,000 lbs) (1 - Control Efficiency (%))

Appendix A: Emission Calculations
Flare Manufacturing Processes in Buildings 2504, 145 and 198

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Buildings 2504 and 198		
Maximum Batches for Each Building = 9 batches/week x 52 weeks/yr =	468	batches/yr each
VOC PTE = 0.015 tons of VOC/batch x maximum batches/yr	7.02	tons/yr each
Hexane PTE = 0.012 tons of VOC/batch x maximum batches/yr	5.62	tons/yr each
Combined VOC PTE =	**14.04**	**tons/yr**
Combined Hexane PTE =	**11.23**	**tons/yr**

Note: VOC and HAP emission factors are from the Part 70 Operating Permit.

Flare Testing in Buildings 2869 and 366

Maximum Throughput = 25 flares/day
Emission Factor = 2.9375 lb PM/flare
Potential Uncontrolled Emissions = 25 flares/day x 365 days/year x 2.9375 lb PM/flare x 1 ton PM/2000 lbs PM = 13.4 tons PM/year
Controlled Emissions = 13.4 tons PM/year x (1-.995) = 0.07 tons/year
Note: Emission Factor is based on the fact that the average flare weighs 5.875 pounds and 50% of the weight is assumed to be emitted as PM.

Appendix A: Emission Calculations
PM Emission Calculations
Carpentry Shops

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Maximum Hours of Operation =
8,760

Emission Unit ID	Control Device	Control Efficiency (%)	Actual Hours Per Year	Hopper Capacity (acf)	Hopper Emptied (times/yr)	Sawdust Collected (lbs/yr)	Sawdust Generated (lbs/yr)	Potential PM/PM-10 Emissions (before controls) (lbs/hr)	Potential PM/PM-10 Emissions (after controls) (lbs/hr)	Potential PM/PM-10 Emissions (before controls) (tons/yr)	Potential PM/PM-10 Emissions (after controls) (tons/yr)
CRN-0056-04-10-T21	Cyclone	99.00%	780	768	4	36,864	37,236	47.74	0.48	209.09	2.09
CRN-0224-02-23-HH12	Cyclone	99.00%	2080	324	26	101,088	102,109	49.09	0.49	215.02	2.15
CRN-2720-04-23-GG12	Cyclone	99.00%	80	26	2	624	630	7.88	0.08	34.49	0.33

PM/PM-10 Potential to Emit before Controls (tons/yr) = 458.60
PM/PM-10 Potential to Emit after Controls (tons/yr) = 4.57

Methodology
Uncontrolled PM and PM-10 emissions were conservatively estimated assuming that all sawdust generated becomes particulate emissions.
Potential PM/PM-10 Emissions (before controls) (lbs/hr) = Sawdust Generated (lbs/yr) / Actual Hours Per Year
Potential PM/PM-10 Emissions (after controls) (lbs/hr) = Sawdust Generated (lbs/yr) - Sawdust Collected / Actual Hours Per Year

Potential PM/PM-10 Emissions (before controls) (tons/yr) = Sawdust Generated (lbs/yr) / Actual Hours Per Year x Maximum Hours of Operation (hrs/yr) x (1 ton/2,000 lbs)

Potential PM/PM-10 Emissions (after controls) (tons/yr) = Sawdust Generated (lbs/yr) - Sawdust Collected / Actual Hours Per Year x Maximum Hours of Operation (hrs/yr) x (1 ton/2,000 lbs)

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 MMBtu/hr)
#2 Fuel Oil

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

S = Weight % Sulfur: 0.5

Capacity kW		Heat Input Capacity MMBtu/hr		Potential Throughput kgals/year	
17.00	1 - Diesel Generator (17 kw)	0.06		3.63	
6.00	1 - Diesel Generator (6 kw)	0.02		1.28	
250.00	1 - Diesel Generator (250 kw)	0.85		53.38	
300.00	1 - Diesel Generator (300 kw)	1.02		64.05	
300.00	5 - Diesel Generators (60 kw, each)	1.02		64.05	
200.00	1 - Diesel Generator (200 kw)	0.68		42.70	
400.00	4 - Diesel Generators (100 kw, each)	1.36		85.40	
13.00	1 - Diesel Generator (13 kw)	0.04		2.78	
20.00	1 - Diesel Generator (20 kw)	0.07		4.27	
7.50	1 - Diesel Generator (7.5 kw)	0.03		1.60	
500.00	1 - Diesel Generator (500 kw)	1.71		106.75	
125.00	1 - Diesel Generator (125 kw)	0.43		26.69	
750.00	1 - Diesel Generator (750 kw)	2.56		160.13	
2888.50	**Total kw**	**9.86**	**Total MMBtu/hr**	**616.70**	**Total kgals/yr**

	Pollutant				
	PM*	SO_2	NOx	VOC	CO
Emission Factor in lb/kgal	2.00	71.00 *(142.0S)*	20.00	0.34	5.00
Potential Emissions in tons/yr	0.62	21.89	6.17	0.10	1.54

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see errata file)

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Potential Emissions (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

See next page for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 MMBtu/hr)
#2 Fuel Oil
HAPs Emissions

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/MMBtu	4.00E-06	3.00E-06	3.00E-06	3.00E-06	9.00E-06
Potential Emissions in tons/yr	1.08E-02	8.10E-03	8.10E-03	8.10E-03	2.43E-02

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/MMBtu	3.00E-06	6.00E-06	3.00E-06	1.50E-05
Potential Emissions in tons/yr	8.10E-03	1.62E-02	8.10E-03	4.05E-02

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MMBtu/hr <100
Furnaces

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr	
214.50	195 - Furnaces (< 1.1 MMBtu/hr each)***	1879.02	
214.50	**Total MMBtu/hr**	**1879.02**	**Total MMCF/yr**

	Pollutant					
	PM*	PM-10*	SO_2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.60	100.00 **see below	5.50	84.00
Potential Emissions in tons/yr	1.79	7.14	0.56	93.95	5.17	78.92

*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
***Each Furnace is an insignificant activity. Assumed that each furnace has a heat input capacity of less than 1.1 MMBtu/hr.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Potential Emissions (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See next page for HAP emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MMBtu/hr <100
Furnaces
HAP Emissions

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03
Potential Emissions in tons/yr	1.97E-03	1.13E-03	7.05E-02	1.69E+00	3.19E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03
Potential Emissions in tons/yr	4.70E-04	1.03E-03	1.32E-03	3.57E-04	1.97E-03

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAP emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
From C-4 Extruder Processing Line

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Emission Unit Description	Maximum Hourly Throughput (units/hr)	Rubber Extruded (lbs/unit)	Maximum Rubber Extruded (lbs/hr)	Maximum Rubber Extruded (lbs/yr)	PM/PM-10 Emission Factor (lb/lb rubber extruded)	PM/PM-10 Potential to Emit (tons/yr)	VOC Emission Factor (lb/lb rubber extruded)	VOC Potential to Emit (tons/yr)	Total HAPs Emission Factor (lb/lb rubber extruded)	Total HAPs Potential to Emit (tons/yr)	Single HAP (Hexane) Emission Factor (lb/lb rubber extruded)	Single HAP (Hexane) Potential to Emit (tons/yr)
C-4 Extruder Processing Line	2,400	1	2,880	25,228,800	1.12E-07	0.001413	1.60E-04	2.02	7.52E-05	0.95	6.05E-05	0.76
Potential Emissions (tons/yr):						**0.001413**		**2.02**		**0.95**		**0.76**

METHODOLOGY

The emission factors are from U.S. EPA, AP-42, 5th Edition, Chapter 4.12, Table 4.12-6 (Extruder).
Potential to Emit (tons/yr) = Maximum Rubber Extruded (lbs/yr) x Emission Factor (lb/lb rubber extruded) x (1 ton/2,000 lbs)

Appendix A: Emission Calculations
Contained Detonation Chamber (P01)

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

PTE based on a maximum throughput of 750 lbs of NEW (Net explosive weight - TNT equivalent) per hour
Emissions factors based on 5/24/2000 test results from blast chamber at Blue Grass Army Deport (BGAD).*

PTE
Continuous Operation Before Controls

Pollutant	lb/lb NEW	PTE (lb/hr)	PTE (tons/yr)
CO	5.68E-02	42.60	186.59
NOx	8.50E-03	6.38	27.92
PM**	3.00E-01	225.00	985.50
SO_2	5.00E-05	0.04	0.16
VOC	1.10E-04	0.08	0.36

Limited PTE
After Control (Baghouse) and Limit of 1700 TPY of NEW

Pollutant	lb/lb NEW	PTE (lb/hr)	PTE (tons/yr)
CO	0.05680	42.60	96.56
NOx	0.00850	6.38	14.45
PM**	0.00030	0.23	0.51
SO_2	0.00005	0.04	0.09
VOC	0.00011	0.08	0.19

PTE
Continuous Operation Before Controls

Pollutant	lb/shot	lb/lb NEW	PTE (lb/hr)	PTE (tons/yr)
Mn***	N/A	1.15E-02	8.63	37.78
PB*	2.54E-03	1.27E-04	0.10	0.42
Cr*	1.72E-03	8.60E-05	0.06	0.28

Limited PTE
After Control (Baghouse) and Limit of 1700 TPY of NEW

Pollutant	lb/shot	lb/lb NEW	PTE (lb/hr)	PTE (tons/yr)
Mn***	N/A	1.15E-05	0.0086	0.0196
PB*	2.54E-06	1.27E-07	0.0001	0.0002
Cr*	1.72E-06	8.60E-08	0.0001	0.0001

METHODOLOGY

* Test results found in Tables 4.c.1 and 4.c.2 in "BGAD Detonation Chamber Data Collection Test Report", August 2000. Results are the average of three tests of the detonation of twenty (20) 105 mm projectiles distributed over one hour for a total of 200 pounds of net explosive weight per test.

** Emissions at BGAD were tested after the baghouse. The estimate of the PTE (before controls) assumes a baghouse efficiency of 99.9% for PM during the BGAD test. The estimate of Limited PTE assumes that the control efficiency is the same for the BGAD test and the NSWC Crane Division baghouse.

***Emission factor based on the "RCRA Air Quality Assessment at the Ammunition Burning Ground" by Tetra Tech, March 2000. Emissions were measured without controls. For emissions after the baghouse, assume a control efficiency of 99.9 for PM (metal HAPs).

PTE (tons/yr) = Emission Factor (lb/lb NEW) x Maximum Hourly Throughput (lbs NEW/hr) x 8,760 hrs/yr x 1 ton/2,000 lbs
Limited PTE (tons/yr) = Emission Factor (lb/lb NEW) x (Limited Annual Throughput (tons NEW/yr) x 2,000 lbs/ton) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Mobile Plasma Treatment System (MPTS) and a 1,000 kW Diesel Generator

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

MPTS Operating Limit =
1,800 hrs/yr

	Pollutant					
	PM	PM-10	SO_2	VOC	NOx	CO
MPTS						
Emission Rate After Controls (lb/hr)[1]	0.068	0.068	20.72	0.00	4.00	0.24
Unlimited PTE (tons/yr)[2]	0.30	0.30	90.75	0.00	17.52	1.03
Generator (MPTS and generator always run simultaneously)						
Generator Emission Rate (lb/hr)[3]	0.60	0.60	1.22	1.30	24.23	3.00
Unlimited PTE (tons/yr)	2.63	2.63	5.34	5.69	106.13	13.14
Unlimited PTE for MPTS with generator (tons/yr	2.93	2.93	96.10	5.69	123.65	14.17
Limited PTE for MPTS with generator (tons/yr)	0.60	0.60	19.75	1.17	25.41	2.91

	Pollutant - HAPs[4]					
	Dioxins	Mercury	Lead and Cadmium	Arsenic, Beryllium, and Chromium	HCl	Manganese
MPTS						
Emission Rate After Controls (lb/hr)[1]	4.00E-10	9.00E-05	2.40E-04	1.90E-04	6.46E-02	4.80E-05
Unlimited PTE for MPTS (tons/yr)	1.75E-09	3.94E-04	1.05E-03	8.32E-04	2.83E-01	2.10E-04
Limited PTE for MPTS (tons/yr)	3.60E-10	8.10E-05	2.16E-04	1.71E-04	5.81E-02	4.32E-05

[1] Emissions from the MPTS are a function of the operating time, not the quantity of waste processed, because pollutants are generated by the arc itself. MPTS emission rates are based on the NESHAP limits in 40 CFR Part 63, Subpart EEE.
[2] The MPTS unlimited PTE is after controls because controls are inherent to the emission factor and federally enforceable.
[3] Generator emission rates are from the data sheet for a 1,000 kW Caterpillar 3512 engine at 65% load.
[4] HAP emissions were not included for the generator because these emissions are negligible.

METHODOLOGY
PTE (tons/yr) = Emission Factor (lb/hr) x Hours of Operations (hrs/yr) x 1 ton/2,000 lbs

Appendix A: Emissions Calculations
SO_2, NOx, CO, VOC, Pb, and HAP Emissions
From the APE 1236 Rotary Kiln Incinerator P03

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Max. Feed Rate	Maximum Feed Throughput	Annual Feed Limit
lbs/hr	tons/yr	tons/yr
240.00	**1,051.20**	**347.00**
Net Explosive Weight (NEW)	Net Explosive Weight (NEW)	Net Explosive Weight (NEW)

1. SO_2, NOx, CO, and Pb Emissions:

	Pollutant			
	SO_2*	NOx*	CO*	Pb**
Emission Factor in lb/lb	0.0047	0.1150	0.0010	0.000115
Potential Emissions in tons/yr	4.90	120.89	1.05	0.12
Limited Potential Emissions in tons/yr	1.62	39.91	0.35	0.04

2. VOC and HAP Emissions:

Organic HAPs	Emission Factor (lb/lb)**	Potential Emission After Controls (tons/yr)	Limited Potential Emission After Controls (tons/yr)
Benzene	5.60E-06	5.89E-03	1.94E-03
Bis Phthalate	2.00E-07	2.10E-04	6.94E-05
Carbon Tetrachloride	3.50E-08	3.68E-05	1.21E-05
Chlorobenzene	5.20E-08	5.47E-05	1.80E-05
Chloroform	1.60E-07	1.68E-04	5.55E-05
Dibutylphthalate	1.00E-04	1.05E-01	3.47E-02
2,4, Dinitrotoluene	1.00E-04	1.05E-01	3.47E-02
Hexachlorobenzene	1.00E-04	1.05E-01	3.47E-02
Methylene Chloride	9.50E-08	9.99E-05	3.30E-05
Naphthalene	1.90E-06	2.00E-03	6.59E-04
Phenol	2.70E-06	2.84E-03	9.37E-04
Tetrachloroethylene	1.30E-08	1.37E-05	4.51E-06
Toluene	6.90E-08	7.25E-05	2.39E-05
Trichloroethylene	2.30E-07	2.42E-04	7.98E-05
Total VOC/Organic HAPs =		**3.27E-01**	**1.08E-01**

Methodology
Potential Emissions (tons/yr) = Max. Feed Rate (lbs/hr) x Emission Factor (lb/lb) x 8,760 hrs/yr /2,000 lb/ton
Limited Potential Emissions (tons/yr) = Annual Feed Limit (tons/yr) x Emission Factor (lb/lb)

Notes:

* Emission factors are from the trial burns for the same unit conducted at the McAlester, Oklahoma base by the U.S. Army Center for Health Promotion and Prevention Medicine (USCHPPM) on February 17 to March 14, 1997. These emission factors are the worst case scenarios and emissions from NG combustion process in the associated afterburner are included also. Note that the CO emission factor is after control (afterburner). The CO control efficiency of the afterburner is unknown.

** Emission factor is from "Health Risk Assessment for Military Munitions Treatment Facilities at Sierra Army Depot", Table 2-19- Deactivation Furnaces, 1996. Note that the emission factors are after control (afterburner). The control efficiency of the afterburner is unknown.

Appendix A: Emissions Calculations
PM/PM-10 Emissions
From the APE 1236 Rotary Kiln Incinerator P03

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 11/07/07

1. Process Description:

Primary PM Control Equipment: Baghouse C07

Grain Loading:	0.0008	grains/acf
Air Flow Rate:	11,697	acfm
Control Efficiency:	99.0%	

Note: This incinerator is also controlled by a cyclone (C05).

2. Potential to Emit After Control:

Controlled Hourly PM/PM-10 Emissions = grain loading (gr/acf) x air flow rate (acfm) x 60 min/hr x 1lb/7,000 grains =	0.08	lbs/hr
Controlled PM/PM-10 Emissions = grain loading (gr/acf) x air flow rate (acfm) x 60 min/hr x 1lb/7,000 grains x 8,760 hrs/yr x 1 ton/2,000 lbs =	0.35	tons/yr

Note: All PM emissions are assumed equal to PM-10 emissions.

3. Potential Uncontrolled Emissions:

Potential PM/PM-10 Emissions = Controlled PM/PM-10 Emissions (tons/yr) / (1 - Control Efficiency) =	35.13	tons/yr

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations (CRN-2805-03-23-GG19)

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Highway 361, Crane, IN 47522-5009
Permit Number: T101-21308-00005
Reviewer: Tanya White/EVP
Date: 07/29/08

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	PM Control Efficiency (%)*	Particulate Potential (after Controls) (ton/yr)	lb VOC/gal solids	Transfer Efficiency
MIL-C-53039A AM-2	11.07	36.31%	8.95%	27.36%	13.00%	41.00%	0.05	10.00	3.48	3.03	1.51	36.35	6.63	3.86	95%	0.19	7.39	75%
Potential Emissions (tons/yr) =											**1.51**	**36.35**	**6.63**	**3.86**		**0.19**		

Methodology

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) x Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) x Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) x Gallons of Material (gal/hr) x (8,760 hr/yr) x (1 ton/2,000 lbs)
Particulate Potential Tons per Year = Gallons of material (gal/hr) x Density (lbs/gal) x (1- Weight % Volatiles) x (1-Transfer efficiency) x (8,760 hrs/yr) x (1 ton/2,000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) x Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
* Assumed a PM control efficiency of 95% for dry filers.
Surface coating operation does not utilize HAP emitting coatings.